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AEROTHERMODYNAMIC DATA REPORT

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VOLUME I

WIND TUNNEL TESTS OF AN 0.019-SCALE SPACE SHUTTLE INTEGRATED VEHICLE -2A CONFIGURATION (MODEL 14-OTS) IN THE NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL

(IA12C)

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Prepared under NASA Contract Number NAS9-13247

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WIND TUNNEL TEST SPECIFICS

Test Number: ARC 87-710
NASA Series Number: IA12C
Test Dates: 11 July to 27 July, 1973

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WIND TUNNEL TESTS OF AN 0.019-SCALE SPACE SHUTTLE INTEGRATED VEHICLE -2A CONFIGURATION (MODEL 14-OTS) IN THE NASA AMES 8 X 7-FOOT UNITARY WIND TUNNEL (IA12C)

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ABSTRACT

This report contains information concerning a wind tunnel test of the 0.019-scale Space Shuttle Integrated Vehicle in the Ames 8 x 7-foot Unitary Wind Tunnel. The test started 11 July 1973 for a total of 133 runs and 165 charge hours. The test identification number is IA12C.

The purpose of the test was to determine the effects of cold jet gas plumes on (1) the integrated vehicle longitudinal and lateral-directional force data, (2) exposed wing hinge moment, (3) wing pressure distributions, (4) orbiter MPS external pressure distributions, and (5) model base pressures. An investigation was undertaken to determine the similarity between solid and gaseous plumes; fluorescent oil flow visualization studies were also conducted.

This report is published in three volumes. Volume I contains plotted force data and tabulated listings of the force and nozzle pressure data. Volume II contains plotted wing pressure data while Volume III contains the corresponding tabulated data listing.

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COEFFICIENT SCHEDULES:

(A): CAF, CAB, CN, CLM vs. α
CN vs. CLM

(B): CY, CBL, CYN vs. β
CY vs. CYN

(C . [illegible] vs [illegible]/C

Note: Nozzle pressure data do not appear in plotted form. See Appendix B (Volume I) for listing of these data.

NOMENCLATURE
General

SYMBOL	SADSAC SYMBOL	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$

Reference & C.G. Definitions

SYMBOL	SADSAC SYMBOL	DEFINITION
A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
l_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

SYMBOL	SADSAC SYMBOL	DEFINITION
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
		Stability-Axis System
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D$_f$	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)

ADDITIONS TO STANDARD NOMENCLATURE

Symbol	Description
Ab_{ACPS}	Attitude control propulsion system base area, ft^2 (total for two)
Ab_{EOHT}	External tank total base area (cavity plus model base), ft^2
Ab_{OMS}	Base area of orbital maneuvering system (minus projected area of OMS nozzle), ft^2 (total for two)
Ab_{OMSN}	Nozzle exit area of OMS, ft^2 (total for two)
Ab_{ORB}	Total orbiter base area (minus projected exit area of MPS nozzles), ft^2
Ab_{SRM}	SRM shroud base area (minus projected nozzle exit area), (total for two), ft^2
$A_{C_{EOHT}}$	External tank cavity area, ft^2
$A_{C_{ORB}}$	Orbiter cavity area, ft^2
$A_{C_{SRM}}$	SRM cavity area, ft^2 (total for two)
$A_{N_{ORB}}$	Total exit area of (3) orbiter MPS nozzles, ft^2
$A_{N_{SRM}}$	Total exit area of (2) SRM nozzles, ft^2
a	Distance from N_1 gage to MRP (positive forward of MRP), inches
b_w	orbiter exposed wing panel semi-span (distance from exposed root chord to tip chord.), inches
$\bar{c}_e$	Elevon M.A.C. length, inches
$\bar{c}_r$	Rudder M.A.C. length, inches
$C_{A_{BAL}}$	Balance chord force coefficient (uncorrected).
$C_{A_{b_{ACPS}}}$	Attitude control manuevering system base chord force coefficient
$C_{A_{b_{EOHT}}}$	External tank base chord force coefficient (based on $A_{b_{EOHT}}$)
$C^{*}_{A_{b_{EOHT}}}$	External tank base chord force coefficient (based on $A_{C_{EOHT}}$)
$C_{A_{b_{OMS}}}$	Orbital maneuvering system base chord force coefficient.

Plot Symbol	Symbol	Description
	$C_{A_{b_{OMSN}}}$	Orbital manuevering system nozzle base chord force coefficient
	$C_{A_{b_{ORB}}}$	Orbiter base chord force coefficient (based on $A_{b_{ORB}}$)
	$C^{*}_{A_{b_{ORB}}}$	Orbiter base chord force coefficient (based on $A_{C_{ORB}}$)
	$C_{A_{b_{SRM}}}$	SRM base chord force coefficient (based on $A_{b_{SRM}}$)
	$C^{*}_{A_{B_{SRM}}}$	SRM base chord force coefficient (based on $A_{C_{SRM}}$)
	$C_{A_{C_{EOHT}}}$	External tank cavity chord force coefficient (corrected to base pressure)
	$C^{*}_{A_{C_{EOHT}}}$	External tank cavity chord force coefficient (based on $A_{C_{EOHT}}$ and EOHT cavity pressures)
	$C_{A_{C_{ORB}}}$	Orbiter cavity chord force coefficient (corrected to base pressure)
	$C^{*}_{A_{C_{ORB}}}$	Orbiter cavity chord force coefficient (based on $A_{C_{ORB}}$ and orbiter cavity pressures)
	$C_{A_{C_{SRM}}}$	SRM cavity chord force coefficient (corrected to base pressure)
	$C^{*}_{A_{C_{SRM}}}$	SRM cavity chord force coefficient (based on $A_{C_{SRM}}$ and SRM cavity pressures)
	$C_{A_{N_{ORB}}}$	Orbiter nozzle chord force coefficient
	$C_{A_{N_{SRM}}}$	SRM nozzle chord force coefficient
	C_{A_f}	Ascent vehicle forebody chord force coefficient
	C_{A_T}	Ascent vehicle total chord force coefficient
	C_{B_ℓ}	Ascent vehicle rolling moment coefficient
	C_{B_W}	Wing bending moment coefficient about exposed root chord
CHEO, CHEI	$C_{H_{e(\ )}}$	Elevon hinge moment coefficient (Subscript denotes inboard or outboard)

Plot Symbol	Symbol	Description
CHW	C_{H_r}	Rudder hinge moment coefficient
CBW	C_{H_W}	Wing torsional moment coefficient
	C_{m_f}	Ascent vehicle forebody pitching coefficient
	C_{m_t}	Ascent vehicle total pitching moment coefficient
	$C_{m_{BAL}}$	Balance pitching moment coefficient
	C_N	Ascent vehicle normal force coefficient
CNW	C_{N_W}	Normal force coefficient on one exposed wing panel
	$C_{P(\ )}$	Wing, base, cavity, and upper MPS nozzle pressure coefficient
	C_Y	Ascent vehicle side force coefficient
	C_{Y_n}	Ascent vehicle yawing moment coefficient
	$\overline{C_W}$	Mean aerodynamic chord of exposed wing panel (based on S_W), inches
	d	Distance from N_2 gage to MRP (positive forward of MRP) inches
	e	Distance from MRP to balance centerline (positive above MRP)
	f	Distance from MRP to Y_1 gage (positive forward of MRP)
	$G_{P(\ )}$	Gimbal pitch angle of nozzle from null position (denoted by subscript), degrees
	$G_{Y(\ )}$	Gimbal yaw angle of nozzle from null position (denoted by subscript), degrees
	g	Distance from MRP to Y_2 gage (positive forward of MRP), inches
	i	Incidence angle of orbiter reference plane with respect to EOHT reference plane, degrees
	$K_{e(\ )}$	Elevon hinge moment gage calibration factor (subscript denotes inboard or outboard) in.-lb/cts
	$K_{T_{pe}}$	Ratio of Measured to Theoretical Exit Pressure P_e meas/$P_{e_{true}}$

Symbol	Description
K_r	Rudder hinge moment gage calibration factor, in.-lbs/cts
K_{ij}	Wing gage calibration factor, in.-lb/ct where i = gage number and j = order of K in the second degree calibration curve fit
ℓ_{REF}	Longitudinal reference length, inches
$m_{1,2,3}$	Wing strain gage output (uncorrected for interactions) in.-lbs; where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
$M_{1,2,3}$	Wing strain gage output which has been corrected for interactions, in.-lbs; where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
M_o	Tunnel freestream mach number.
$m'_{1,2,3}$	Wing strain gage output, raw data counts, where 1 is the inboard bending gage, 2 is the outboard bending gage, and 3 is the torsion gage.
$m'_{e(\ )}$	Elevon hinge moment gage output, raw data counts where subscript denotes inboard or outboard panel.
m'_r	Rudder hinge moment gage output, raw data counts.
$MRP_{(X,Y,Z)}$	Moment reference point in X,Y,Z coordinates, inches
N_1	Forward normal force gage output, pounds
N_2	Aft normal force gage output, pounds
N_W	Normal force on exposed wing panel, pounds.
$P_{c(\ )}$	Nozzle plenum total pressure denoted by a subscript

Symbol	Description
$P_{e(\ )}$	Nozzle exit static pressure (denoted by a subscript), psia
$P_{(\ )}$	Model pressure, psfa
P_o	Tunnel static pressure, psfa
P_T	Tunnel total pressure, psfa
q	Tunnel freestream dynamic pressure, psf
$RP_{C(\ )}$	Ratio of plenum total pressure to P_T, denoted by a subscript
$RP_{e(\ )}$	Ratio of nozzle exit static pressure to P_T, denoted by a subscript
RN	Tunnel reynolds number, per foot
S_e	Elevon area (total one side) ft^2
S_r	Rudder area, ft^2
S_w	Area of one exposed wing panel (includes glove area), ft^2
S_{REF}	Reference area, ft^2
T_o	Tunnel freestream static temperature, °R
T_T	Tunnel total temperature, °R
W_{F_i}	Model pressure weighting factor, either 0 or 1
X_W	Distance between wing bending gage m_1 and m_2, inches

Symbol	Description
XCP	Model station for center of pressure (X_T), inches
XCP_W	Model station of exposed wing panel center of pressure location (X_T), inches
X_o	Orbiter longitudinal station, inches
X_{HL}	Orbiter station of exposed wing torsional axis, inches
X_T	EOHT longitudinal station, inches
y_W	Spanwise distance from the exposed wing root chord to the m_2 gage (positive when m_2 gage is outboard of reference station), model scale inches
Y_o	Orbiter spanwise station, inches
Y_{ROOT}	Orbiter spanwise station of exposed wing root chord, inches
Y_T	EOHT spanwise station, inches
YCP_W	Orbiter spanwise station of exposed wing panel center of pressure location, inches
$Z_{b_{ACPS}}$	Vertical distance from centroid of ACPS base area to MRP (positive above MRP), inches
$Z_{b_{EOHT}}$	Vertical distance from centroid of EOHT base area to MRP (positive above MRP), inches
$Z_{b_{OMS}}$	Vertical distance from centroid of OMS base area to MRP (positive above MRP), inches
$Z_{b_{OMSN}}$	Vertical distance from centroid of OMS nozzle base area to MRP (positive above MRP), inches
$Z_{b_{ORB}}$	Vertical distance from centroid of ORB base area to MRP (positive above MRP), inches
$Z_{b_{SRM}}$	Vertical distance from centroid of SRM base area to MRP (positive above MRP), inches

Symbol	Description
$Z_{C_{EOHT}}$	Vertical distance from centroid of EOHT cavity area to MRP (positive above MRP), inches
$Z_{C_{ORB}}$	Vertical distance from centroid of orbiter cavity area to MRP (positive above MRP), inches
$Z_{C_{SRM}}$	Vertical distance from centroid of SRM cavity area to MRP (positive above MRP), inches
$Z_{N_{ORB}}$	Vertical distance from centroid of orbiter nozzle exit area to MRP (positive above MRP), inches
$Z_{N_{SRM}}$	Vertical distance from centroid of SRM nozzle exit area to MRP (positive above MRP), inches
δ_r	Rudder deflection, degrees
$\left(\frac{\partial m_1}{\partial m_2}\right)_{(\ )} \cdots \left(\frac{\partial m_3}{\partial m_1}\right)_{(\ )}$	First order interaction for wing bending and torsion gages. (1) denotes first order term in a 2nd degree curve fit, (2) denotes second order term in a 2nd degree curve fit
α, β	Ascent vehicle angle of attack and side slip respectively, degrees

Subscripts	Description
a	aileron
ACPS	attitude control propulsion system
e	elevon
EOHT	external oxygen hydrogen tank
I	inboard
L	Left
O	outboard
OMS	orbital maneuvering system
OMSN	orbital maneuvering system nozzle
ORB	Orbiter
r	Rudder
R	Right
SRM	Solid Rocket Motor
T	Total
W	Wing
1	Top MPS nozzle
2	Left MPS nozzle
3	Right MPS nozzle
4	Left SRM nozzle
5	Right SRM nozzle

NOMENCLATURE (Concluded)

Symbol	Description
OPR	Ratio of orbiter chamber pressure (P_c) to freestream total pressure
SRMPR	Ratio of SRM nozzle exit pressure (P_e) to freestream total pressure
MPSRA	Orbiter MPS nozzle rotation angle (same as θ_n), deg.
POWER	ON: indicates gaseous plumes are being generated OFF: indicates gaseous plumes are not being generated
X/D	Ratio of the distance forward of the nozzle exit to the internal diameter of the nozzle exit
RUDDER	Rudder deflection, deg.
ϕ	Radial angle on MPS nozzles with $\phi = 0°$ on top, $\phi = 90°$ on the right side, $\phi = 180°$ on bottom, and $\phi = 270°$ on left side, looking forward, deg.
θ_n	Rotation angle of MPS nozzles in ball sockets (clockwise rotation as looking forward is positive), deg.
GIMBAL	GIMBAL = 1.0 (GP1 = GY1 = 0°, GY2 = -3.5°, GY3 = +3.5°) GIMBAL = 2.0 (GP1 = +11°, GY1 = GY2 = GY3 = -9°) GIMBAL = 3.0 (GP1 = GP2 = GP3 = +11°, GY2 = -3.5°, GY3 = +3.5°, GP4 = GP5 = +7.0°) GIMBAL = 4.0 (GP1 = -11°, GP2 = GP3 = -8°, GY2 = -3.5°, GY3 = +3.5°, GP4 = GP5 = -7°)

CONFIGURATIONS INVESTIGATED

The model tested was an 0.019-scale representation of the NASA/Rockwell configuration of the integrated space shuttle vehicle. The model had the capability of cold jet simulation of the jet plumes generated from the SRM and MPS nozzles.

The -2A configuration orbiter was rigidly attached to the EOHT at 0° incidence with respect to the EOHT centerline. The orbiter MPS nozzles were attached to the non-metric air supply system. Each nozzle could be gimbaled ±11° pitch and ±9° yaw.

The orbiter righthand wing panel was instrumented with 40 static pressure taps and the lefthand wing was instrumented with a single flexure three-component moment balance. The elevon panels of the lefthand wing panel were each instrumented with a single-component moment balance.

The vertical tail rudder had the capability of being deflected ±10°. The rudder panel was instrumented with a single-component moment balance.

The -4 configuration EOHT was mounted on a 2.5-inch sting mounted internal balance.

Both -2A and -4 configuration SRM's were available for testing. Each SRM was rigidly attached to the EOHT with the SRM centerline on water plane X_T = 0.0 in. and butt plane Y_T = 243 in. full scale. In addition to the baseline position the SRM's could be shifted forward 71 in. full scale. The SRM nozzles were attached to the non-metric air supply system and could be gimbaled ±7° in pitch and ±7° in yaw.

Solid plumes were fabricated for the three orbiter nozzles and the two SRM nozzles with the contours simulating the Mach 3.5 gaseous plume shape.

The orbiter had three MPS nozzles whose individual gimbal points each define the origin of three separate reference systems. These reference systems are shown in figure 1 (e). Positive indications of gimbal pitch and gimbal yaw are shown.

Figure 1 (f) is an enlarged view of one of these reference systems. All three planes shown are at right angles to one another. The dashed lines are projections of the nozzle centerline onto the pitch and yaw planes of the reference system. (α) is the angle of pitch, either up or down; (ψ) is the angle of yaw, either right or left.

Each nozzle is physically set to a gimbal angle of pitch and/or yaw by an apparatus which measures (ϕ), some radial direction in the base plane and (γ), the angle from that radial to the nozzle centerline. The ϕ sector is determined by (α) and (ψ):

ϕ	α	ψ
270° to 360°	0° to +90°	0° to +90°
180° to 270°	0° to -90°	0° to +90°
90° to 180°	0° to -90°	0° to -90°
0° to 90°	0° to +90°	0° to -90°

All test programs for this model use the symbol G_p, to denote the angle that the centerline of the nozzle is pitched (up or down), and

G_Y, as the angle that the centerline of the nozzle is yawed (right or left). Up and left are both in the positive direction when looking forward.

Since all angles are defined from the nozzle null position, the relationships are as follows:

$$(1) \quad G_P = \alpha - \alpha_{null}$$

$$(2) \quad G_Y = \psi - \psi_{null}$$

where α_{null} is the angle that the nozzle centerline is pitched from the reference system axis to null position, and ψ_{null} is the angle that the nozzle centerline is yawed from the reference system axis to null position (figure 1[f]).

The α_{null} and ψ_{null} are specified for each MPS nozzle in the dimensional data for N_9 and N_{10}. It should be noted here, that a side view of the orbiter shows that the nozzle base plate is rotated 13° from vertical (figure 1[e]). Therefore, the three independent nozzle reference systems for nozzle pitch differ from the orbiter's X_O, Y_O, Z_O reference system by a 13° rotation angle from vertical.

The following equations were used to convert nozzle gimbal angles, α and ψ, to ϕ and γ, the two angles that the fixture uses to duplicate the given angles:

$$(1) \quad \tan \phi = \frac{-\tan \psi}{\tan \alpha}$$

$$(2) \quad \tan \gamma = \frac{\sin \phi + \cos \phi}{\tan \alpha - \tan \psi}$$

Also, $\theta = 90^\circ - \gamma$ for the following fixture settings:

TOP NOZZLE:

AERO SETTING	FIXTURE SETTING ϕ	θ
Null & Firing $G_Y = G_P = 0$	0°	+3°
$G_P = +11$	0°	+14°
$G_P = -11$	180°	8°
$G_Y = +9$	288°	9.5°
$G_Y = -9$	71.7°	9.5°
$G_P = +11$, $G_Y = -9$	32.5°	16.5°

BOTTOM LEFT NOZZLE:

AERO SETTING	FIXTURE SETTING ϕ	θ
Firing (R3.5) $G_Y = -3.5$	180°	3°
$G_P = +11$	336.5°	8.7°
$G_P = -11$	193.6°	14.4°
$G_Y = +9$	256.7°	12.8°
$G_Y = -9°$	118.3°	6.2°
$G_P = +11$, $G_Y = -9$	34.42°	9.7°
Null $G_P = 0 = G_Y$	229.4°	4.6°

BOTTOM RIGHT NOZZLE:

AERO SETTING	FIXTURE SETTING	
Firing (L3.5) $G_Y = +3.5$	180°	3°
$G_P = +11$	23.5°	8.7°
$G_P = -11$	166.2°	14.4°
$G_Y = +9$	241.8°	6.2°
$G_Y = -9$	103.3°	12.8°
$G_P = +11$, $G_Y = -9$	57.7°	14.7°
Null $G_P = 0 = G_Y$	130.6°	4.6°

The **Ames** high pressure air supply was utilized for cold jet plumes emanating from the orbiter MPS and SRM nozzles. The orbiter MPS and SRM nozzles had independent controls for separate throttling of each system of nozzles. SRM gaseous plumes could be produced without generating orbiter plumes but vice versa was not true. Plume shapes for various Mach numbers were produced by setting specific values of P_c/P_T for the orbiter nozzles and P_e/P_T for the SRM nozzles. Listed below are the pressure ratios used for nominal and off-nominal conditions.

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NOZZLE	M_∞	P_c/P_∞	P_c/P_T	P_e/P_T	CONDITION
SRM	2.5	1490	87.21	.9158	nominal
	2.5	700	41.08	.4294	.471 nominal
	3.0	2686	73.13	.7679	nominal
	3.0	2686	73.13	.7679	nominal
	3.0	1440	39.20	.4116	.536 nominal
	3.0	4030	110.0	1.15	1.5 nominal
	3.5	6000	78.66	.8260	nominal *
	3.5	3312	43.42	.456	.552 nominal
	3.5	8400	110.0	1.15	1.4 nominal
ORBITER	2.5	534	31.255	.3720	nominal
	2.5	251	14.721	.1752	.471 nominal
	3.0	987	26.86	.3198	nominal
	3.0	530	14.40	.1714	.536 nominal
	3.0	1480	41.0	.480	1.5 nominal
	3.5	1820	23.86	.2840	nominal *
	3.5	1005	13.17	.1568	.552 nominal
	3.5	3090	41.0	.494	1 7 nominal

* Solid plumes available for this condition

The EOHT was mounted on the Ames 2.5-inch Task MK-III six-component internal balance. The model angle of attack was indicated by an Ames dangleometer and angle of sideslip was indicated by sector read-out plus sting/balance deflections.

The lefthand wing panel was instrumented with a three-component single flexure moment balance. The elevons of the lefthand wing panel and the rudder were each instrumented with a single flexure single-component moment balance.

The righthand orbiter wing panel was instrumented with forty (40) static pressure taps. A total of sixteen (16) base and cavity taps were installed for use in correcting chord force measurements.

The orbiter MPS nozzles each had twelve (12) external static taps at various radial and longitudinal locations. The nozzles were rotated to obtain a complete pressure survey around each nozzle.

The following configuration components were tested:

Component	Definition
B_{10}	Body
C_5	Canopy
D_7	Manipulator housing
F_4	Body flap
M_3	Orbital maneuvering subsystem (OMS) pod
N_8	OMS nozzles
N_9	Orbiter nozzles
N_{10}	Orbiter pressure nozzles
N_{17}	SRM nozzles $M_\infty = 0.9, 1.2$
N_{18}	SRM nozzles $M_\infty = 3.0, 3.5$
N_{29}	SRM nozzles (mismatch)
N_{30}	SRM nozzles forward
V_5	Vertical tail
R_5	Rudder
W_{87}	Wing
E_{18}	Elevon
X_{10}	Transition strip
S_6	SRM (-2A)
S_{10}	SRM (-4)
S_{11}	SRM (-4 moved forward)
T_{10}	EOHT

The following table summarizes integrated vehicle (OTS) configurations investigated:

Configuration	Description
O_1	Baseline 2A orbiter $B_{10}\ C_5\ D_7\ F_4\ M_3\ N_8\ N_9\ V_5\ R_5\ W_{87}\ E_{18}\ X_{10}$
O_2	Baseline 2A orbiter with static taps on the three MPS nozzles $B_{10}\ C_5\ D_7\ F_4\ M_3\ N_8\ N_{10}\ V_5\ R_5\ W_{87}\ E_{18}\ X_{10}$
O_3	Same as O_1 with top MPS nozzle blocked
O_4	Same as O_1 with lower lefthand MPS nozzle blocked
T_1	Baseline configuration 4 EOHT T_{10}
S_1	Baseline configuration 4 SRM $S_{10}N_{18}$
S_2	Same as S_1 shifted forward 71 in. full scale $S_{11}N_{30}$
S_3	Same as S_1 but with mismatched SRM nozzles $S_{10}N_{29}$
S_4	Baseline 2A SRM S_6N_{18}

These symbols are used as a shorthand notation to designate groups of components on the Data Set/Run Number Summary (Table IIa.).

TEST FACILITY DESCRIPTION

The Ames Research Center Unitary Plan Wind Tunnel 8- by 7-foot supersonic test circuit is a closed-return, variable-density, air-medium facility with a 16-foot-long test section. The throat has flexible sidewalls for control of tunnel Mach number. The 8- by 7-foot tunnel uses the same motors and compressors as the 9- by 7-foot circuit.

The tunnel is capable of attaining Mach numbers from 2.45 to 3.50 at Reynolds numbers from below 1.0×10^6/ft to approximately 5.0×10^6/ft.

Models are supported, in general, from stings mounted to a body-of-revolution on a floor-to-ceiling strut system. Internal strain-gauge balances are used for force and moment data, and pressure instrumentation is provided.

Schlieren and shadowgraph equipment is available, as well as additional force, moment, and stress monitoring instrumentation for specific models.

DATA REDUCTION

The lefthand wing panel was instrumented with a single-flexure three component moment balance. This balance was temperature compensated and gave accurate measurements at all tunnel temperatures.

The two elevons on the lefthand wing panel and the rudder were each instrumented with single component moment balances. These balances were not temperature compensated and experienced large zero shifts during the test. During any specific pitch or yaw run the zero shifts were negligible. However, during a series of pitch and yaw runs the zero shifts happened at a point that cannot be determined. The sensitivity did not change. The tabulated data for these components (CH_{E_I}, CH_{E_O}, CH_R) are presented and should be used only for obtaining slopes of these measurements vs. α or β and should not be used for defining magnitude of the moment load.

Center of pressure (XCP):

$$XCP = MRP\ (X_T) - \frac{aN_1 + dN_2}{N_1 + N_2}$$

$XCP \approx$ EOHT station, inches (model scale)

Ascent vehicle total chord force coefficient (C_{A_T}):

$$C_{A_T} = C_{A_{BAL}} + C_{A_{C_{ORB}}} + C_{A_{C_{EOHT}}} + C_{A_{C_{SRM}}} + C_{A_{N_{ORB}}} + C_{A_{N_{SRM}}}$$

where:

$$C_{A_{C_{ORB}}} = - C^{*}_{A_{C_{ORB}}} + C^{*}_{A_{b_{ORB}}}$$

$$C_{A_{C_{EOHT}}} = - C^{*}_{A_{C_{EOHT}}} + C^{*}_{A_{b_{EOHT}}}$$

$$C_{A_{C_{SRM}}} = - C^{*}_{A_{C_{SRM}}} + C^{*}_{A_{b_{SRM}}}$$

and:

$$C^*_{A_{C_{ORB}}} = - \frac{\Sigma_{i=101}^{102} Cp_i}{\Sigma_{i=101}^{102} WF_i} \left(\frac{A_{C_{ORB}}}{S_{REF}} \right)$$

$$C^*_{A_{b_{ORB}}} = - \frac{\Sigma_{i=201}^{204} Cp_i}{\Sigma_{i=201}^{204} WF_i} \left(\frac{A_{C_{ORB}}}{S_{REF}} \right)$$

$$C_{A_{N_{ORB}}} = + \frac{\Sigma_{i=201}^{204} Cp_i}{\Sigma_{i=201}^{204} WF_i} \left(\frac{A_{N_{ORB}}}{S_{REF}} \right)$$

$$C^*_{A_{C_{EOHT}}} = - \frac{\Sigma_{i=303}^{304} Cp_i}{\Sigma_{i=303}^{304} WF_i} \left(\frac{A_{C_{EOHT}}}{S_{REF}} \right)$$

$$C^*_{A_{b_{EOHT}}} = - \frac{\Sigma_{i=301}^{302} Cp_i}{\Sigma_{i=301}^{302} WF_i} \left(\frac{A_{C_{EOHT}}}{S_{REF}} \right)$$

$$C^*_{A_{C_{SRM}}} = - \frac{\Sigma_{i=103}^{104} Cp_i}{\Sigma_{i=103}^{104} WF_i} \left(\frac{A_{C_{SRM}}}{S_{REF}} \right)$$

$$C^*_{A_{b_{SRM}}} = - \frac{\Sigma_{i=401}^{404} Cp_i}{\Sigma_{i=401}^{404} WF_i} \left(\frac{A_{C_{SRM}}}{S_{REF}} \right)$$

$$C_{A_{N_{SRM}}} = + \frac{\Sigma_{i=401}^{404} Cp_i}{\Sigma_{i=401}^{404} WF_i} \left(\frac{A_{N_{SRM}}}{S_{REF}} \right)$$

Ascent vehicle total pitching moment coefficient (C_{M_T}):

$$C_{M_T} = C_{M_{BAL}} - C^*_{A_{C_{ORB}}} \left[\frac{Z_{C_{ORB}}}{\ell_{REF}}\right] + C^*_{A_{b_{ORB}}} \left[\frac{Z_{C_{ORB}}}{\ell_{REF}}\right]$$

$$+ C_{A_{N_{ORB}}} \left[\frac{Z_{N_{ORB}}}{\ell_{REF}}\right] - C^*_{A_{C_{EOHT}}} \left[\frac{Z_{C_{EOHT}}}{\ell_{REF}}\right] + C^*_{A_{b_{EOHT}}} \left[\frac{Z_{C_{EOHT}}}{\ell_{REF}}\right]$$

$$- C^*_{A_{C_{SRM}}} \left[\frac{Z_{C_{SRM}}}{\ell_{REF}}\right] + C^*_{A_{b_{SRM}}} \left[\frac{Z_{C_{SRM}}}{\ell_{REF}}\right] + C_{A_{N_{SRM}}} \left[\frac{Z_{N_{SRM}}}{\ell_{REF}}\right]$$

Substituting:

$$C_{M_T} = C_{M_{BAL}} + C_{A_{C_{ORB}}} \left[\frac{Z_{C_{ORB}}}{\ell_{REF}}\right] + C_{A_{N_{ORB}}} \left[\frac{Z_{N_{ORB}}}{\ell_{REF}}\right] + C_{A_{C_{EOHT}}} \left[\frac{Z_{C_{EOHT}}}{\ell_{REF}}\right]$$

$$+ C_{A_{C_{SRM}}} \left[\frac{Z_{C_{SRM}}}{\ell_{REF}}\right] + C_{A_{N_{SRM}}} \left[\frac{Z_{N_{SRM}}}{\ell_{REF}}\right]$$

Forebody chord force coefficient (C_{A_f}):

$$C_{A_f} = C_{A_T} - C_{A_{b_{ORB}}} - C_{A_{b_{EOHT}}} - C_{A_{b_{SRM}}}$$

$$- C_{A_{b_{OMS}}} - C_{A_{b_{OMSN}}} - C_{A_{b_{ACPS}}}$$

where:

$$C_{A_{b_{ORB}}} = - \frac{\sum_{i=201}^{204} C_{P_i}}{\sum_{i=201}^{204} WF_i} \left[\frac{A_{b_{ORB}}}{S_{REF}}\right]$$

$$C_{A_{b_{EOHT}}} = - \frac{\sum_{i=301}^{302} C_{P_i}}{\sum_{i=301}^{302} WF_i} \left[\frac{A_{b_{EOHT}}}{S_{REF}}\right]$$

$$C_{A_{b_{SRM}}} = - \frac{\sum_{i=401}^{404} C_{P_i}}{\sum_{i=401}^{404} WF_i} \left[\frac{A_{b_{SRM}}}{S_{REF}}\right]$$

$$C_{A_{b_{OMSN}}} = -(C_{P_{305}}) \left[\frac{A_{b_{OMSN}}}{S_{REF}}\right]$$

$$C_{A_{b_{OMS}}} = - \left(C_{P_{105}} \right) \left[\frac{A_{b_{OMS}}}{S_{REF}} \right]$$

$$C_{A_{b_{ACPS}}} = - (C_{P_{405}}) \left[\frac{A_{b_{ACPS}}}{S_{REF}} \right]$$

Ascent vehicle forebody pitching moment (C_{M_f}):

$$C_{M_f} = C_{M_T} - C_{A_{b_{ORB}}} \left[\frac{Z_{b_{ORB}}}{\ell_{REF}} \right] - C_{A_{b_{EOHT}}} \left[\frac{Z_{b_{EOHT}}}{\ell_{REF}} \right]$$

$$- C_{A_{b_{SRM}}} \left[\frac{Z_{b_{SRM}}}{\ell_{REF}} \right] - C_{A_{b_{OMS}}} \left[\frac{Z_{b_{OMS}}}{\ell_{REF}} \right]$$

$$- C_{A_{b_{OMSN}}} \left[\frac{Z_{b_{OMSN}}}{\ell_{REF}} \right] - C_{A_{b_{ACPS}}} \left[\frac{Z_{b_{ACPS}}}{\ell_{REF}} \right]$$

Wing, base, cavity, and upper MPS nozzle pressure coefficient (C_{P_i}):

$$C_{P_i} = \left(\frac{P_i - P_o}{q} \right)$$

Elevon hinge moment (C_{H_e}):

$$C_{H_{e_I}} = \frac{m'_{e_I} \; K_{e_I}}{q \; S_e \; C_e} \text{ (Inboard)}$$

$$C_{H_{e_O}} = \frac{m'_{e_O} \; K_{e_O}}{q \; S_e \; C_e} \text{ (outboard)}$$

$$C_{H_{e_T}} = C_{H_{e_I}} + C_{H_{e_o}}$$

where:

m' = raw cts

K = calibration factor (in.-lb/cts)

Rudder hinge moment (C_{H_r}):

$$C_{H_r} = \frac{m_r' K_r}{q\ S_r\ C_r}$$

Wing bending, torsion, and load CP:

Convert raw data counts to in.-lbs: (basic slopes)

where:

m' = raw data cts

K_{ij} = calibration factor (in.-lb/ct) and i = gage number
j = order of term of second degree curve fit

$$m_1 = m_1' K_{11} + (m_1')^2 K_{12} \quad \text{(inboard gage)}$$

$$m_2 = m_2' K_{21} + (m_2')^2 K_{22} \quad \text{(outboard gage)}$$

$$m_3 = m_3' K_{31} + (m_3')^2 K_{32} \quad \text{(torsion gage)}$$

Taking interactions into account:

$$M_1 = m_1 - \left[\left(\frac{\delta m_1}{\delta m_2}\right)_1 m_2 + \left(\frac{\delta m_1}{\delta m_2}\right)_2 (m_2)^2\right] - \left[\left(\frac{\delta m_1}{\delta m_3}\right)_1 m_3 + \left(\frac{\delta m_1}{\delta m_3}\right)_2 (m_3)^2\right]$$

$$M_2 = m_2 - \left[\left(\frac{\delta m_2}{\delta m_1}\right)_1 m_1 + \left(\frac{\delta m_2}{\delta m_1}\right)_2 (m_1)^2\right] - \left[\left(\frac{\delta m_2}{\delta m_3}\right)_1 m_3 + \left(\frac{\delta m_2}{\delta m_3}\right)_2 (m_3)^2\right]$$

$$M_3 = m_3 - \left[\left(\frac{\delta m_3}{\delta m_1}\right)_1 m_1 + \left(\frac{\delta m_3}{\delta m_1}\right)_2 (m_1)^2\right] - \left[\left(\frac{\delta m_3}{\delta m_2}\right)_1 m_2 + \left(\frac{\delta m_3}{\delta m_2}\right)_2 (m_2)^2\right]$$

Determine loads and coefficients:

$$N_W = \left(\frac{M_1 - M_2}{X_W}\right)$$

$$C_{N_W} = \frac{N_W}{q\ S_W}$$

$$C_{B_W} = \frac{(M_2 + Y_W N_W)}{q\ S_W\ b_W}$$

Determine loads and coefficients:

$$C_{H_W} = \frac{M_3}{q\ S_W\ \bar{C}_W}$$

$$XCP_W = X_{HL} - \frac{C_{H_W}}{C_{N_W}}\ \bar{C}_W$$

$$Y_{CP_W} = Y_{ROOT} + \frac{C_{B_W}}{C_{N_W}}\ b_W$$

Jet Plume Parameters ($RP_{C(\ )}$, $RP_{e(\ )}$):

$$RP_{C(\ )} = 144\ \frac{P_{C(\ )}}{P_T}$$

$$RP_{e(\ )} = 144\ \frac{P_{e(\ )}}{P_T}\left[\frac{1}{K_{T_{pe}}}\right]$$

The following reference dimensions and constants were used:

	Full Scale	Model Scale
$A_{b_{ACPS}}$	28.42 ft^2	0.01026 ft^2
$A_{b_{ET}}$	572.56 ft^2	0.2067 ft^2
$A_{b_{OMS}}$	16.973 ft^2	0.00613 ft^2
$A_{b_{OMSN}}$	25.631 ft^2	0.00925 ft^2
$A_{b_{ORB}}$	226.75 ft^2	0.08186 ft^2
$A_{b_{SRM}}(S_6)$	512.465 ft^2	0.185 ft^2
$A_{b_{SRM}}(S_{10})$	183.01 ft^2	0.0661 ft^2
$A_{C_{ET}}$	366.5 ft^2	0.132 ft^2
$A_{C_{ORB}}$	302.40 ft^2	0.1092 ft^2
$A_{C_{SRM}}$	181.378 ft^2	0.0654 ft^2
$A_{N_{ORB}}$	141.44 ft^2	0.0511 ft^2
$A_{N_{SRM}}$	219.02 ft^2	0.0791 ft^2
a	-	-2.783 in.
b_w	363.341 in.	6.903 in.
c_e	90.7 in.	1.723 in.
c_r	74.4 in.	1.414 in.

	Full Scale	Model Scale
c_w	513.474 in.	9.756 in.
d	-	-11.283 in.
e	-	0.0 in.
f	-	-3.533 in.
g	-	-10.533 in.
ℓ_{REF}	1328.0 in.	25.232 in.
S_e	210.0 ft^2 per wing panel	0.0758 ft^2
S_r	106.38 ft^2	0.0384 ft^2
S_W	1006.5 ft^2	0.363 ft^2
S_{REF}	2690.0 ft^2	0.971 ft^2
X_w	-	0.5638 in.
X_{HL}	1150.79 in.	21.865 in.
y_w	-	0.1423 in.
Y_{ROOT}	105.0 in.	1.995 in.
$Z_{b_{ACPS}}$	402.987 in.	7.656 in.
$Z_{b_{ET}}$	0.0	0.0
$Z_{b_{OMS}}$	415.505 in.	7.895 in.
$Z_{b_{OMSN}}$	437.94 in.	8.321 in.

	Full Scale	Model Scale
$Z_{b_{ORB}}$	310.0 in.	5.89 in.
$Z_{b_{SRM}}$	0.0	0.0
$Z_{c_{ET}}$	0.0	0.0
$Z_{C_{ORB}}$	349.66 in.	6.64 in.
$Z_{C_{SRM}}$	0.0	0.0
$Z_{N_{ORB}}$	335.0 in.	6.36 in.
$Z_{N_{SRM}}$	0.0	0.0

Calibration Constants

	Positive Gage Output	Negative Gage Output
$K_{r_{pe}}$	(ORB) = 1.060	(SRM) = 1.122
K_{e_I}	26.20 in. -lb-v/mv	26.39 in. -lb-v/mv
K_{e_o}	27.03 in. -lb-v/mv	27.42 in. -lb-v/mv
K_r	20.80 in. -lb-v/mv	20.885 in. -lb-v/mv
K_{11}	463.1672 in. -lb-v/mv	476.3954 in. -lb-v/mv
K_{12}	0.0	0.0
K_{21}	436.8877 in. -lb-v/mv	437.4474 in. -lb-v/mv
K_{22}	0.0	0.0

	Positive Gage Output	Negative Gage Output
K_{31}	539.9926 in. -lb-v/mv	538.9718 in. -lb-v/mv
K_{32}	0.0	0.0
$(\partial m_1/\partial m_2)_1$	0.0	0.0
$(\partial m_1/\partial m_2)_2$	0.0	0.0
$(\partial m_1/\partial m_3)_1$	-.010562	-.004132
$(\partial m_1/\partial m_3)_2$	0.0	0.0
$(\partial m_2/\partial m_1)_1$	0.0	0.0
$(\partial m_2/\partial m_1)_2$	0.0	0.0
$(\partial m_2/\partial m_3)_1$	.014458	.018206
$(\partial m_2/\partial m_3)_2$	0.0	0.0
$(\partial m_3/\partial m_1)_1$	.022277	.029935
$(\partial m_3/\partial m_1)_2$	0.0	0.0
$(\partial m_3/\partial m_2)_1$	-.031554	-.03498
$(\partial m_3/\partial m_2)_2$	0.0	0.0

TEST : IA12C (ARC 87-710)	DATE : July, 1973

TEST CONDITIONS

MACH NUMBER	REYNOLDS NUMBER (per unit length)	DYNAMIC PRESSURE (pounds/sq. ft.)	STAGNATION TEMPERATURE (degrees Fahrenheit)
2.5	2.38×10^6/ ft	590	120
3.0	2.30×10^6/ ft	375	120
3.5	1.78×10^6/ ft	245	120

BALANCE UTILIZED: 2.5-inch Task MK III

		CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
fwd	NF	1400 lbs	± .5%	
fwd	SF	700 lbs	± .5%	
	AF	280 lbs	± .5%	
aft	NF	1400 lbs	± .5%	
aft	SF	700 lbs	± .5%	
	RM	2000 in-lbs	± .5%	

COMMENTS: Model was also instrumented with: elevon and rudder hinge moment gages, wing 3-component balance, nozzle and wing pressure orifices, and base pressures.

TABLE II. - COLLATION INFORMATION

a. TEST ARC 87-110 DATA SET/RUN NUMBER

COLLATION SUMMARY

[illegible]

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5				NO. of RUNS	MFTFA	POWER	ØPR	CFM PR	GP1	GY1	GY2	GY3	i				TEST RUN NUMBERS
RBZ002	$Ø_2 T_1 S_1$	A	0	3					0°	[illegible]	—	—	11°	[illegible]	9°	-9°	0°				
4		A	0	4					0	ON	19.4	.9158									
5		0	B	5					0	ON	19.4	.9158									
6		0	B	6					0	OFF	—	—									
7		A	0	7					30	OFF	—	—									
8		A	0	8					30	ON	31.26	[illegible]									
9		0	B	9					30	OFF	—	—									
10		0	B	10					30	ON	31.26	.9155									
11		A	0	11					60	ON	31.26	.9155									
12		0	B	12					60	ON	31.26	.9155									
13		A	0	13					60	OFF	—	—									
14		0	B	14					60	OFF	—	—									
15		A	0	15					10	ON	31.26	[illegible]									
16		0	B	16					90	ON	31.26	[illegible]									
17		0	B	17					90	OFF	—	—									
18		A	0	18					90	OFF	—	—									
19		A	0	19					120	ON	[illegible]	[illegible]									
20		0	B	20					120	ON	31.26	[illegible]									
21		0	B	21					120	OFF	—	—									
22		A	0	22					120	OFF	—	—									

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

αA: -8, -6, -4, -2, 0, 2, 4, 6, 8

βB: -7, -6, -4, -2, 0, 2, 4, [illegible], 7

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	3.0			NO. of RUNS	PARAMETERS/VALUES MERA	POWER	δPR	SPNPR	GP1	GY1	GY2	GY3	i				TEST RUN NUMBERS
RBZ023	$\phi_2 T_1 S_1$	A	O	23					150	ON	31.26	.9158	+11°	-9°	-9°	-9°	0°				
24		O	B	24					150	ON	31.26	.9158									
25		O	B	25					150	OFF	—	—									
26		A	O	26					150	OFF	—	—									
27		A	O	27					0°	ON	31.26	.9158									
28		O	B	28						ON	31.26	.9158									
29		O	B	29						OFF	—	—									
30		A	O	30						OFF	—	—									
31	$\phi_1 T_1 S_1$	A	O	31						OFF	—	—	0°	0°	-3.5°	+3.5°					
32	WITH UPPER NIPS	O	B	32						OFF	—	—									
33	NOZZLE INSTRUMENTED	O	B	33						ON	31.26	.9158									
34		A	O	34						ON	31.26	.9158									
35		A	O	35						ON	14.72	.4274									
36		O	B	36						ON	14.72	.4274									
37		A	O	37						OFF	—	—									
38		A	O		38					OFF	—	—									
39		O	B		39					OFF	—	—									
40		O	B		40					ON	26.86	.7679									
41		A	O		41					ON	26.86	.7679									
42		A	O		42					ON	14.90	.4116									

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: → IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α A: -8, -6, -4, -2, 0, 2, 4, 6, 8

β B: -7, -6, -4, -2, 0, 2, 4, 6, 7

TABLE II. - Continued

a. TEST ARC87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST

☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	3.0	3.5		NO. of RUNS	MRSRA	[illegible]	JPR	SKMPR	RUDDER	GY2	GY3	i					TEST RUN NUMBERS
RBZ043	$\phi_1 T_1 S_1$	O	B		43				0°	ON	[illegible]	[illegible]	0°	-35°	+35°	0°					
44	WITH UPPER NPE	O	B		44					ON	41.0	1.15									
45	NOZZLE INSTRUMENTED	A	O		45					ON	41.0	1.15									
46		A	O			46				OFF	—	—									
47		O	B			47				OFF	—	—									
48		O	B			48				ON	13.17	.4560									
49		A	O			49				ON	13.17	.4560									
50		A	O			50				ON	23.26	.8260									
51		O	B			51				ON	[illegible]	.5260									
52		O	B			52				ON	41.0	1.15									
53		A	O			53				ON	41.0	1.15									
54	$\phi_1 T_1 S_1$	A	O	54					—	OFF	—	—	+10°								
55		O	B	55					—	OFF	—	—									
56		O	B	56					—	ON	31.26	.9158									
57		A	O	57					—	ON	31.26	.9158									
59		A	O		59				—	OFF	—	—									
60		O	B		60				—	OFF	—	—									
61		O	B		61				—	ON	26.16	.7679									
62		A	O		62				—	ON	26.16	.7679									
63		A	O			63			—	OFF	—	—									

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α or β SCHEDULES

αA: -8, -6, -4, -2, 0, 2, 4, 6, 8

βB: -7, -6, -4, -2, 0, 2, 4, 6, 7

TABLE II. - Continued

a. TEST AR 227-110 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	MACH NUMBERS 3.0	MACH NUMBERS 3.5		NO. of RUNS	PARAMETERS/VALUES POWER	ϕPR	[illegible]	[illegible]	GY2	GY3	i	TEST RUN NUMBERS
RBZ 064	$\phi_1 T_1 S_1$	0	B			64			OFF	—	—	+10°	-35°	+3.5°	0°	
65		0	B			65			ON	[illegible]	[illegible]					
66		A	0			66			ON	[illegible]	.8260					
67	$\phi_3 T_1 S_1$	A	0	67					ON	31.26	.9158					
68		A	0	68					ON	[illegible]	[illegible]					
69		A	0		69				ON	[illegible]	.7679					
70		A	0			70			ON	23.86	.8260					
71		A	0			71			ON	—	.8260					
72	$\phi_1 T_1 S_4$	A	0	72					ON	31.26	[illegible]	0°				
73		A	0	73					OFF	—	—					
74		A	0		74				ON	[illegible]	.7679					
75		A	0		75				OFF	—	—					
76		A	0			76			ON	23.86	.8260					
77		A	0			77			OFF	—	—					
78	$\phi_3 T_1 S_1$	A	0	78					ON	31.26	.9158					
79		A	0		79				ON	26.86	.7679					
80		A	0			80			ON	23.86	.8260					
81		A	0			81			ON	—	.8260					
82	$\phi_4 T_1 S_1$	A	0	82					ON	31.26	.9158					
83	$\phi_4 T_1 S_1$	A	0		83				ON	26.86	.7679					

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α A: -8, -6, -4, -2, 0, 2, 4, 6, 8

β B: -7, -5, -3, -1, 1, 3, 5, 7

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	MACH NUMBERS 3.0	MACH NUMBERS 3.5	NO. of RUNS	POWER	OPR	SRMPR	GP1	GP2	GY2	GP3	GC3	GP4	GP5	i
RBZ084	$\Phi_4 T_1 S_1$	A	0			84		ON	[illegible]	[illegible]	0°	0°	-3.5°	0°	+3.5°	0°	0°	0°
85	$\Phi_1 T_1 S_1$	A	0		85			OFF	—	—	+11°	+11°		+11°		+7°	+7°	
86		0	B		86			OFF	—	—								
87		0	B		87			ON	26.86	[illegible]								
88		A	0		88			ON	[illegible]	.7679								
89		A	0			89		OFF	—	—								
90		0	B			90		OFF	—	—								
91		0	B			91		ON	23.86	[illegible]								
92		A	0			92		ON	23.86	.8260								
93		A	0	93				OFF	—	—								
94		0	B	94				OFF	—	—								
95		0	B	95				ON	31.26	.9158								
96		A	0	96				ON	31.26	.9158								
97		A	0	97				OFF	—	—	-11°	-8°		-8°		-7°	-7°	
98		0	B	98				OFF	—	—								
99		A	0	99				ON	31.26	.9158								
100		0	B	100				ON	31.26	.9158								
101		0	B		101			OFF	—	—								
102		A	0		102			OFF	—	—								
103		A	0		103			ON	26.86	.7679								

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α or β SCHEDULES

αA: -8, -6, -4, -2, 0, 2, 4 ...

βB: -7, -6, -4, -2, 0, 2, 4 ...

TABLE II. - Continued

a. TEST ARC 87-710 DATA SET/RUN NUMBER (Continued)

COLLATION SUMMARY

☐ PRETEST

☑ POSTTEST

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DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	3.0	3.5		NO. of RUNS	POWER	OPR	SEMMA	GP1	GP2	GY2	GP3	GY3	GP4	GP5	i		TEST RUN NUMBERS
RBZ 104	$\phi_1 T_1 S_1$	0	B		104				ON	26.86	.7679	-11°	-8°	-3.5°	-8°	+3.5°	-7°	-7°	0°		
105		0	B			105			OFF	—	—										
106		A	0			106			OFF	—	—										
107		A	0			107			ON	23.86	.8260										
108		0	B			108			ON	23.86	.8260										
109	$\phi_1 T_1 S_3$	A	0		109				ON	26.86	.7679	0°	0°		0°		0°	0°			
110		0	B		110				ON	26.86	.7679										
111		0	B			111			ON	23.86	.8260										
112		A	0			112			ON	23.86	.8260										
113		0	B			113			ON	23.86	.8260										
114	$\phi_1 T_1 S_2$	A	0		114				OFF	—	—										
115		0	B		115				OFF	—	—										
116		0	B		116				ON	26.86	.7679										
117		A	0		117				ON	26.86	.7679										
118		A	0			118			OFF	—	—										
119		0	B			119			OFF	—	—										
120		0	B			120			ON	23.86	.8260										
121		A	0			121			ON	23.86	.8260										
122	$\phi_1 T_1$	A	0			122			OFF	—	—										
123		0	B			123			OFF	—	—										

1 7 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: IDPVAR(1) | IDPVAR(2) | NDV

α or β SCHEDULES

α A: -8, -6, -4, -2, 0, 2, 4, 6

β B: -7, [illegible]

TABLE II. - Concluded

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a. TEST APC17-710 DATA SET/RUN NUMBER (Concluded)

COLLATION SUMMARY

☐ PRETEST
☑ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	MACH NUMBERS 2.5	3.0	3.5		NO. of RUNS	POWER	ΦPR	TONNO	GY2	GY3	i	TEST RUN NUMBERS
RB3 124	φ1T1	O	B			124			ON	23.26	—	-3.5	+3.5°	0°	
125		A	C			125			ON	23.16	—				
126	φ2T1	A	O			126			ON	23.16	—				
127	φ4T1	A	O			127			ON	23.16	—				
128	φ1T1S1 - MACH 3.5	A	C		128				OFF	—	—				
129	CRE TER AND SEM	O	B		129				OFF	—	—				
130	SOLID PLUMES	O	B			130			ON	—	—				
131		A	O			131			ON	—	—				
132	O1T1S1 OIL FLOW	C	C			132			ON/OFF	23.86	.226				
133		O	D			133			ON/OFF	23.64	.826				

1 7 13 19 25 31 37 43 49 55 61 67 75 76

IDPVAR(1) | IDPVAR(2) | NDV

COEFFICIENTS: α or β SCHEDULES

α C: -8, -4, 0, 4, 8

β D: -7, -4, 0, 4, 7

Table II (Cont'd)

B. 0.019 Scale - Plume Model Orbiter Pressure Nozzle Table

(Bottom Left)

$M_\infty = 2.5$

		TANCE FORWARD OF NOZZLE EXIT																							
	X	.1"				.4"				.7"				1.0"				1.3"				1.6"			
	X/D	.058				.232				.406				.580				.753				.928			
ϕ_{AM} OF FIXED NOZZLE DEG.	VARIABLE	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF	θ_N	TAP NO.	RUN NO. POWER ON	RUN NO. POWER OFF
0	α	0	13	27	30	30	24	6	7	60	23	11	13	90	22	15	18	120	21	19	22	150	20	23	26
	β			28	29			10	9			12	14			16	17			20	21			24	25
30	α	30		8	7	60		11	13	90		15	18	120	22	19	22	150	21	23	26	0	14	27	30
	β			10	9			12	14			16	17			20	21			24	25			28	29
60	α	60		11	13	90		15	18	120		19	22	150	22	23	26	0	15	27	30	30		8	7
	β			12	14			16	17			20	21			24	25			28	29			10	9
90	α	90		15	18	120		19	22	150	23	23	26	0	16*	27	30	30		8	7	60		11	13
	β			16	17			20	21			24	25			28	29			10	9			12	14
120	α	120		19	22	150	24	23	26	0	17	27	30	30		8	7	60		11	13	90		15	18
	β			20	21			24	25			28	29			10	9			12	14			16	17
150	α	150	13	23	26	0	18	27	30	30		8	7	60		11	13	90		15	18	120		19	22
	β			24	25			28	29			10	9			12	14			16	17			20	21
180	α	0	19	27	30	30		8	7	60		11	13	90		15	18	120		19	22	150	14	23	26
	β			28	29			10	9			12	14			16	17			20	21			24	25
210	α	30		8	7	60		11	13	90		15	18	120		19	22	150	15	23	26	0	20	27	30
	β			10	9			12	14			16	17			20	21			24	25			28	29
240	α	60		11	13	90		15	18	120		19	22	150	16*	23	26	0	21	27	30	60		8	7
	β			12	14			16	17			20	21			24	25			28	29			10	9
270	α	90		15	18	120		19	22	150	17	23	26	0	22	27	30	30		8	7	90		11	13
	β			16	17			20	21			24	25			28	29			10	9			12	14
300	α	120		19	22	150	18	23	26	0	23	27	30	30	22	8	7	60		11	13	120		15	18
	β			20	21			24	25			28	29			10	9			12	14			16	17
330	α	150	19	23	26	0	24	27	30	30	23	8	7	60	22	11	13	90	21	15	18	150	20	19	22
	β			24	25			28	29			10	9			12	14			16	17			20	21

*TAP #16 WAS BAD THROUGHOUT THE TEST

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Table II (Cont'd)

E. 0.019 SCALE JET PLUME MODEL ORBITER PRESSURE NOZZLE TABLE
(BOTTOM RIGHT)

$M_\infty = 2.5$

ϕ AT OF FIXED NOZZLE COORDINATES (DEG.)		DISTANCE FORWARD OF NOZZLE EXIT																							
	X	.2"				.4"				.7"				1.0"				1.3"				1.6"			
	X/D	[illegible]				.232				.406				.580				.753				.928			
				RUN NO.				RUN NO.				RUN NO.				RUN NO.				RUN NO.				RUN NO.	
	VARIABLE	ϕ_N	TAP NO.	POWER ON	POWER OFF	ϕ_N	TAP NO.	POWER ON	POWER OFF	ϕ_N	TAP NO.	POWER ON	POWER OFF	ϕ_N	TAP NO.	POWER ON	POWER OFF	ϕ_N	TAP NO.	POWER ON	POWER OFF	ϕ_N	TAP NO.	POWER ON	POWER OFF
0	α			27	30			8	7			11	13			15	18			19	22			23	26
	β	0	25	28	29	30	36	10	9	60	35	12	14	90	34	16	17	120	33	20	21	150	32	24	25
30	α			8	7			11	13			15	18			19	22			23	26			27	30
	β	30		10	9	60		12	14	90		16	17	120	34	20	21	150	33	24	25	0	26	28	29
60	α			11	13			15	18			19	22			23	26			27	30			8	7
	β	60		12	14	90		16	17	120		20	21	150	34	24	25	0	27	28	29	30		10	9
90	α			15	18			19	22			23	26			27	30			8	7			11	13
	β	90		16	17	120		20	21	150	35	24	25	0	28	28	29	30		10	9	60		12	14
120	α			19	22			23	26			27	30			8	7			11	13			15	18
	β	120		20	21	150	36	24	25	0	29	28	29	30		10	9	60		12	14	90		16	17
150	α			23	26			27	30			8	7			11	13			15	18			19	22
	β	150	25	24	25	0	30	28	29	30		10	9	60		12	14	90		16	17	120		20	21
180	α			27	30			8	7			11	13			15	18			19	22			23	26
	β	0	31	28	29	30		10	9	60		12	14	90		16	17	120		20	21	150	26	24	25
210	α			8	7			11	13			15	18			19	22			23	26			27	30
	β	30		10	9	60		12	14	90		16	17	120		20	21	150	27	24	25	0	32	28	29
240	α			11	13			15	18			19	22			23	26			27	30			8	7
	β	60		12	14	90		16	17	120		20	21	150	28	24	25	0	33	28	29	30		10	9
270	α			15	18			19	22			23	26			27	30			8	7			11	13
	β	90		16	17	120		20	21	150	29	24	25	0	34	28	29	30		10	9	60		12	14
300	α			19	22			23	26			27	30			8	7			11	13			15	18
	β	120		20	21	150	30	24	25	0	35	28	29	30	34	10	9	60		12	14	90		16	17
330	α			23	26			27	30			8	7			11	13			15	18			19	22
	β	150	31	24	25	0	36	28	29	30	35	10	9	60	34	12	14	90	33	16	17	120	32	20	21

Table II [illegible]

0.019 Scale Jet Plume Model Orbiter Pressure Nozzle Table
(Top Nozzle)

$M_\infty = 2.5$

DISTANCE FORWARD OF NOZZLE UNIT

φ RAY OF FIXED NOZZLE (DEG.)	VARIABLE	[illegible] θ_N	[illegible] TAP NO.	[illegible] RUN NO. POWER ON	[illegible] RUN NO. POWER OFF	[illegible] θ_N	[illegible] TAP NO.	[illegible] RUN NO. POWER ON	[illegible] RUN NO. POWER OFF
[illegible]	α	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	β			[illegible]	[illegible]			10	9
[illegible]	α	[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
	β			[illegible]	[illegible]			12	14
[illegible]	α	60		11	13	90		15	18
	β			12	14			16	17
90	α	90		15	18	120		19	22
	β			16	17			20	21
120	α	120	7	19	22	150	12	23	26
	β			20	21			24	25
150	α	150	1	23	26	0	6	27	30
	β			24	25			28	29
150	α	0	7	27	30	30		8	7
	β			28	29			10	9
210	α	30		8	7	60		11	13
	β			10	9			12	14
240	α	60		11	13	90		15	18
	β			12	14			16	17
27[illegible]	α	90		15	18	120		19	22
	β			16	17			20	21
300	α	120		19	22	150	6	23	26
	β			20	21			24	25
330	α	150	7	23	26	0	12	27	30
	β			24	25			28	29

φ RAY OF FIXED NOZZLE (DEG.)	VARIABLE	[illegible] θ_N	[illegible] TAP NO.	[illegible] RUN NO. POWER ON	[illegible] RUN NO. POWER OFF	1.0" .590 θ_N	1.0" .590 TAP NO.	1.0" .590 RUN NO. POWER ON	1.0" .590 RUN NO. POWER OFF
[illegible]	α	[illegible]	[illegible]	[illegible]	[illegible]	90	10	15	16
	β			[illegible]	[illegible]			16	17
[illegible]	α	[illegible]		[illegible]	[illegible]	120	10	19	22
	β			[illegible]	[illegible]			20	21
[illegible]	α	120		19	22	150	10	23	26
	β			20	21			24	25
90	α	150	11	23	26	0	4	27	30
	β			24	25			26	29
120	α	0	5	27	30	30		8	7
	β			28	29			10	9
150	α	30		8	7	60		11	13
	β			10	9			12	14
150	α	60		11	13	90		15	16
	β			12	14			16	17
210	α	90		15	18	120		19	22
	β			16	17			20	21
240	α	120		19	22	150	4	23	26
	β			20	21			24	25
27[illegible]	α	150	5	23	26	0	10	27	30
	β			24	25			28	29
300	α	0	11	27	30	30	10	[illegible]	7
	β			28	29			10	9
330	α	30	11	8	7	60	10	11	13
	β			10	9			12	14

φ RAY OF FIXED NOZZLE (DEG.)	VARIABLE	1.3" .753 θ_N	1.3" .753 TAP NO.	1.3" .753 RUN NO. POWER ON	1.3" .753 RUN NO. POWER OFF	1.6" .928 θ_N	1.6" .928 TAP NO.	1.6" .928 RUN NO. POWER ON	1.6" .928 RUN NO. POWER OFF
[illegible]	α	120	9	19	22	150	5	23	26
	β			20	21			24	25
[illegible]	α	150	9	23	26	0	2	27	30
	β			24	25			28	29
[illegible]	α	0	3	27	30	30		8	7
	β			28	29			10	9
90	α	30		8	7	60		11	13
	β			10	9			12	14
120	α	60		11	13	90		15	16
	β			12	14			16	17
150	α	90		15	16	120		19	22
	β			16	17			20	21
150	α	120		19	22	150	2	23	26
	β			20	21			24	25
210	α	150	3	23	26	0	6	27	30
	β			24	25			28	29
240	α	0	[illegible]	27	30	30		8	7
	β			28	29			10	9
27[illegible]	α	30		[illegible]	7	60		11	13
	β			10	9			12	14
300	α	60		11	13	90		15	18
	β			12	14			16	17
330	α	90	9	15	18	120	5	19	22
	β			16	17			20	21

TABLE II. COLLATION INFORMATION

c. ARC 87-710 Data Set/Run Number Collation Summary

Nozzle Pressure Data

TEST: ARC 87-710 (IA12C)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE: JULY 1973

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	CONTROL DEFLECTION Mach	Power	PR	SBMPR	NO. OF RUNS	MPSRA 0°	30°	60°	90°	120°	150°
RBZ*01	ϕ_2 T, S,	A	0	2.5	ON	3.26	.9158		27	8	11	15	19	23
-02		B	0	2.5	ON	3.26	.9158		28	10	12	16	20	24
-03		A	0	2.5	OFF	-	-		30	7	13	18	22	26
-04		B	0	2.5	OFF	-	-		29	9	14	17	21	25

TEST RUN NUMBERS

1 7 13 19 25 31 37 43 49 55 61 67 75 76

CA

COEFFICENTS IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

αA: -8, -6, -4, -2, 0, 2, 4, 6, 8

AB: -7, -6, -4, -2, 0, 2, 4, 6, 7

* RBZA -- DATASETS CONTAIN UPPER MPS NOZZLE DATA
RBZB -- DATASETS CONTAIN LOWER LEFTHAND MPS NOZZLE DATA
RBZC -- DATASETS CONTAIN LOWER RIGHTHAND MPS NOZZLE DATA

TABLE III. - MODEL COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: B10 - Body

GENERAL DESCRIPTION: Fuselage, 2A Configuration, Lightweight Orbiter per Rockwell Lines VL70-000089 "B".

Scale Model = 0.019

DRAWING NUMBER: VL70-000089 "B"
VL70-000092, 93, 94 "A"
SS-A-00092

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Length ~ in.	1328.3	25.238
Max. Width ~ in. (@X_o = 1528.3)	265.0	5.035
Max. Depth ~ in. (@X_o = 1480.52)	248.0	4.712
Fineness Ratio	5.012	5.012
Area ~ Ft.^{2}		
Max. Cross-Sectional	456.4	0.1648
Planform	-	-
Wetted	-	-
Base	-	-

TABLE III. - Continued.

MODEL COMPONENT: C5 Orbiter Canopy

GENERAL DESCRIPTION: Orbiter Canopy for Light Weight Orbiter Configuration

Model Scale = 0.019

DRAWING NUMBER: VL-70-000092

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
STA. FWD. Bulkhead, in	391.0	7.429
STA. T.E., in	560.0	10.640
Canopy/Body Intersection, IN	391.0	7.429

TABLE III. - Continued.

MODEL COMPONENT: D7 - Manipulator Housing

GENERAL DESCRIPTION: 2A Configuration Per Rockwell Lines VL70-000093

Scale Model = 0.019

DRAWING NUMBER: VL70-000093; SS-A-00092

DIMENSIONS:	**FULL-SCALE**	**MODEL SCALE**
Length ~ in.	881.0	16.739
Max. Width ~ in.	51.0	0.969
Max. Depth ~ in.	23.0	0.437
Fineness Ratio	-	-
Area		
Max. Cross-Sectional	-	-
Planform	-	-
Wetted	-	-
Base	-	-

Location at:

℄ Fuselage BP = 0.0
WP = 500.0 INFS
X_o426.0 to X_o1307.0 INFS

TABLE III. - Continued.

MODEL COMPONENT: F4 Body Flap

GENERAL DESCRIPTION: Aft Body Flap Used on Light Weight Orbiter Configuration

Model Scale = 0.019

DRAWING NUMBER: VL-70-000094 "A", SS-A-00092

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Length, in	84.70	1.609
Max. Width, in	265.00	5.035
Max. Depth	-	-
Fineness Ratio	-	-
Area, Ft^2		
Max. Cross-Sectional	-	-
Planform	142.64	0.05149
Wetted	-	-
Base	38.65	0.01395

MODEL COMPONENT: M_3 - OMS POD

GENERAL DESCRIPTION: 2A Lightweight Orbiter Configuration per Rockwell Lines VL70-000094"A"

Scale Model = 0.019

DRAWING NUMBER: VL70-000094 "A"; SS-A-00092

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Length ~ in.	346.0	6.574
Max. Width ~ in. @ X_o 1450.0	108.0	2.052
Max. Depth ~ in. @ X_o 1500.0	113.8	2.162
Fineness Ratio	-	-
Area		
Max. Cross-Sectional	-	-
Planform	-	-
Wetted	-	-
Base	-	-

℄ of OMS POD
Z_o = 463.9 INFS: WP400 + 63.9 = 463.9 INFS
Y_o = 80.0 INFS
Length: X_o 1214.0 to X_o 1560.0 = 346.0 INFS

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N_8

GENERAL DESCRIPTION: Basic OMS nozzle of configuration 2A per Rockwell Lines VL70-008306 and VL70-000089"B". Intersection of nozzle exit plane and nozzle centerline at X_o = 1570.75, Y_o = ±99.25, Z_o = 507.25

MODEL SCALE = .019

DRAWING NO. VL70-008306, VL70-000089"B", SS-A00092

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No.		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit	50.00	0.950
Throat	N/A	N/A
Inlet	28.00	0.532
Area ~ ft^2. /Nozzle		
Exit	13.635	0.00493
Throat		
Gimbal Point (station) ~ in.		
X	1518.0	28.842
Y	±88.0	1.672
Z	492.0	9.348
Null Position ~ deg.		
Pitch	15°49'	15°49'
Yaw (Outb'd)	±12°17'	±12°17'

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TABLE III. - Continued

MODEL COMPONENT: MPS NOZZLES - N 9

GENERAL DESCRIPTION: Orbiter nozzles used for cold plume simulation at M = 0.9, 1.25, 1.55, 2.0, 3.0 and 3.5. All (3) nozzles are mounted to ball sockets with gimbal angles of ±11° pitch and ±9° yaw from null.

MODEL SCALE = .019

DRAWING NO. SS-A00092; SS-A00095

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. 0.9 thru 3.5		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit	90.730	1.7238
Throat	28.126	0.5344
Inlet	37.336	0.7094
Area ~ ft^2. /Nozzle		
Exit	44.896	0.0162
Throat		
Gimbal Point (station) ~ in.		
Upper Nozzle		
X	1445.0	27.455
Y	0.0	0.0
Z	443.0	8.417
Lower Nozzles		
X	14[illegible].9	27.890
Y	±53.0	1.007
Z	342.6	6.510
Null Position ~ deg.		
Upper Nozzle		
Pitch	16°	16°
Yaw	0°	0°
Lower Nozzles		
Pitch	10°	10°
Yaw (outb'd)	3.5°	3.5°

TABLE III. - Continued..

MODEL COMPONENT: MPS NOZZLES - N10

GENERAL DESCRIPTION: Same as N9 except each nozzle has (12) external static pressure taps on their surfaces

MODEL SCALE = .019

DRAWING NO. SS-A00092, SS-A00095

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No.		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit		
Throat		
Inlet		
Area ~ ft^2.		
Exit		
Throat		
Gimbal Point (station) ~ in.		
Upper Nozzle		
X		
Y		
Z		
Lower Nozzles		
X		
Y		
Z		
Null Position ~ deg.		
Upper Nozzle		
Pitch		
Yaw		
Lower Nozzles		
Pitch		
Yaw		

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N17

GENERAL DESCRIPTION: BSRM Nozzle ($\theta_N = 11°$) used for cold jet plume simulation at M = .9 and 1.2 (ϵ = 7.0)

MODEL SCALE = 0.019

DRAWING NO. SS-A00110

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. .9, 1.2		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in./Nozzle		
Exit	141.684	2.692
Throat	53.611	1.019
Inlet	69.316	1.317
Area ~ ft^2./Nozzle		
Exit	109.489	0.0395
Throat		
Gimbal Point (station) ~ in.		
X	2338.790	44.439
Y	±243.000	±4.617
Z	400.000	7.600
Null Position ~ deg.		
Pitch	0°	0°
Yaw	0°	0°

MODEL COMPONENT: NOZZLES - N 18

GENERAL DESCRIPTION: BSRM Nozzle ($\theta_N = 24.4°$) used for cold jet plume simulation at M = 3.0 and M = 3.5

MODEL SCALE = .019

DRAWING NO. SS-A00110

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. 2.5, 3.0, 3.5		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit	141.684	2.692
Throat	53.611	1.0186
Inlet	69.316	1.317
Area ~ ft^2. /Nozzle		
Exit	109.489	0.0395
Throat		
Gimbal Point (station) ~ in.		
X	2338.790	44.437
Y	±243.000	±4.617
Z	400.000	7.600
Null Position ~ deg.		
Pitch	0°	0°
Yaw	0°	0°

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N_{29}

GENERAL DESCRIPTION: BSRM Nozzles mismatched on left and right side, i.e., left nozzle contour and location same as N_{18} and right nozzle contour and locations same as N_{17} ($\epsilon = 7.0$)

MODEL SCALE = .019

DRAWING NO. SS-A00110

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. ________		
Length ~ in.		
Gimbal Point to Exit Plane		
Throat to Exit Plane		
Diameter ~ in.		
Exit		
Throat		
Inlet		
Area ~ ft^2.		
Exit		
Throat		
Gimbal Point (station) ~ in.		
X		
Y		
Z		
Null Position ~ deg.		
Pitch		
Yaw		

TABLE III. - Continued.

MODEL COMPONENT: NOZZLES - N30

GENERAL DESCRIPTION: BSRM Nozzle same as N18 except moved forward 71" full scale.
Gimbal point also moved forward 71". Used for Mach No. 's 2.5, 3.0, and 3.5
(ϵ = 7.0)

MODEL SCALE = .019

DRAWING NO. SS-A00110

DIMENSIONS	FULL SCALE	MODEL SCALE
Mach No. ______		
Length ~ in.		
Gimbal Point to Exit Plane	______	______
Throat to Exit Plane	______	______
Diameter ~ in.		
Exit	______	______
Throat	______	______
Inlet	______	______
Area ~ ft^2.		
Exit	______	______
Throat	______	______
Gimbal Point (station) ~ in.		
X	______	______
Y	______	______
Z	______	______
Null Position ~ deg.		
Pitch	______	______
Yaw	______	______

MODEL COMPONENT: VERTICAL - V5 (Light Wt. Orbiter Configuration)

GENERAL DESCRIPTION: Centerline Vertical Tail, Double Wedge Airfoil with Rounded Leading Edge

Model Scale = 0.019

DRAWING NUMBER: VL-70-000095; SS-A-00092

DIMENSIONS:

TOTAL DATA	FULL-SCALE	MODEL SCALE
Area (Theo) Ft^2		
Planform	413.25	0.1492
Span (Theo) In	315.72	5.999
Aspect Ratio	1.675	1.675
Rate of Taper	0.507	0.507
Taper Ratio	0.404	0.404
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	26.249	26.249
0.25 Element Line	41.130	41.130
Chords: Inches		
Root (Theo) WP	268.50	5.102
Tip (Theo) WP	108.47	2.061
MAC	199.81	3.796
Fus. Sta. of .25 MAC	1463.50	27.807
W. P. of .25 MAC	635.52	12.075
B. L. of .25 MAC	0.0	0.0
Airfoil Section		
Leading Wedge Angle ~ Deg	10.00	10.00
Trailing Wedge Angle ~ Deg	14.92	14.92
Leading Edge Radius, IN	2.00	0.038
Void Area ~ Ft^2	13.17	0.00475
Blanketed Area ~ Ft^2	12.67	0.00457

TABLE III. - Continued.

MODEL COMPONENT: R5 - Rudder

GENERAL DESCRIPTION: 2A Configuration per Rockwell Lines VL 70-000095.

Scale Model = 0.019

DRAWING NUMBER: VL70-000095 SS-A00091, 92

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
Area ~ Ft^2	106.38	0.0384
Span (equivalent) ~ IN	201.0	3.819
Inb'd equivalent chord, IN	91.585	1.740
Outb'd equivalent chord, IN	50.833	0.966
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.400	0.400
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	34.83	34.83
Tailing Edge	26.25	26.25
Hingeline	34.83	34.83
Area Moment (Normal to hinge line) ~ Ft^3	526.13	0.00361

(Product of Area and Mean Chord)

TABLE III. - Concluded.

MODEL COMPONENT: WING-W 87 Lightweight Orbiter

GENERAL DESCRIPTION: Orbiter Configuration per Rockwell Lines VL70-000093

NOTE: (Dihedral angle is defined at the lower surface of the wing at the 75.33% element line projected into a plane perpendicular to the FRL.)

Scale Model = 0.019

TEST NO.

DWG. NO. VL70-000093
SSA-A00091, 92

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft^2 Planform	2690.0	0.971
Span (Theo In.	936.682	17.797
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees	+3.000	+3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	-10.24	-10.24
0.25 Element Line	35.209	35.209
Chords: ~ IN		
Root (Theo) B.P.O.O.	689.24	13.096
Tip, (Theo) B.P.	137.85	2.619
MAC	474.81	9.021
Fus. Sta. of .25 MAC	1136.89	21.601
W.P. of .25 MAC	299.20	5.685
B.L. of .25 MAC	182.13	3.460
EXPOSED DATA		
Area (Theo) Ft^2	1752.29	0.633
Span, (Theo) In. BP108	720.68	13.693
Aspect Ratio	2.058	2.058
Taper Ratio	0.2451	0.2451
Chords		
Root BP108	562.40	10.686
Tip 1.00 $\frac{b}{2}$	137.85	2.619
MAC	393.03	7.468
Fus. Sta. of .25 MAC	1185.31	22.521
W.P. of .25 MAC	300.20	5.704
B.L. of .25 MAC	251.76	4.783
Airfoil Section (Rockwell Mod NASA) XXXX-64		
t/c @ Root $\frac{b}{2}$ = 0.425	0.10	0.10
t/c @ Tip $\frac{b}{2}$ = 1.00	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff Planform Area Ft^2	120.33	0.04[illegible]
Leading Edge Intersects Fus M. L. @ Sta	560.0	10.640
Leading Edge Intersects Wing @ Sta	1035.0	19.665

MODEL COMPONENT: E18 - Elevon

GENERAL DESCRIPTION: 2A Configuration Per W-87 Rockwell Lines VL70-000093

Data for (1) of (2) Sides

Scale Model = 0.019

DRAWING NUMBER: VL70-000093; SS-A-00092

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area $\sim Ft^2$	205.52	0.0742
Span (equivalent) $\sim$ in.	353.34	6.713
Inb'd equivalent chord (B.P.115.0in),in	114.78	2.181
Outb'd equivalent chord (B.P.468.3in),in	55.00	1.045
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	0.208	0.208
At Outb'd equiv. chord	0.400	0.400
Sweep Back Angles, degrees		
Leading Edge	0.00	0.00
Tailing Edge	-10.24	-10.24
Hingeline (X_o=1337" F. S.)	0.00	0.00
Area Moment (Normal to hinge line) Ft^3 Product of Area Moment	1,548.07	0.01062

NOTE: The elevon panel consists of an InBD and OutBD segment. The split line dividing the segments is at B.P. 281 inches full scale (B.P. 5.339 inches Model Scale)

MODEL COMPONENT: S6 - Booster Solid Rocket Motor

GENERAL DESCRIPTION: Booster Solid Rocket Motor (Light Weight Orbiter Configuration) body of Revolution.

Data for 1 of 2 sides

Model Scale = 0.019

DRAWING NUMBER: VL-72-000061 'C' ; VL-77-000012 'B' ; SS-A-00094

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length (Includes Nozzle), IN	1741.0	33.080
Max. Width (Tank Dia.), IN	142.0	2.698
Max. Depth (Aft Shroud), IN	259.0	4.921
Fineness Ratio	6.722	6.722
Area, Ft^2		
Max. Cross-Sectional	365.87	0.132
Planform	-	-
Wetted	-	-
Base	-	-
W.P. of BSRM Centerline, (X_t), IN	400.0	7.600
F.S. of BSRM Nose (X_t), IN	743.0	14.117

TABLE III. - Continued.

Model Component: Solid Rocket Motor (S_{10})

General Description: Booster solid rocket motor, body of revolution
Data for 1 of 2 sides

Model Scale = 0.019

Drawing Number: VL77-000039

Dimensions:	Full-Scale	Model Scale
Length (includes nozzle), in.	1741.0	33.080
Max width (diameter), in.	142.0	2.698
Max depth (aft shroud diameter), in.	192.0	3.648
Fineness ratio	9.0677	9.0677
Area ~ ft^2		
Max cross-sectional	201.062	0.0726
Planform		
Wetted		
Base		
WP of BSRM centerline, (X_T), in.	400.0	7.600
FS of BSRM nose, (X_T), in.	743.0	14.117

TABLE III. - Continued.

Model Component: Solid Rocket Motor (S_{11})

General Description: Booster solid rocket motor; body of revolution; data for 1 of 2 sides. (See Figure 11.) Same as S_{10} except shifted forward 71.0 inches full scale.

Model Scale = 0.019

Drawing Number: VL77-000039

Dimensions:	Full-Scale	Model Scale
Length (includes nozzle), in.	1741.0	33.080
Max width (diameter) in.	142.0	2.698
Max depth (aft shroud, dia) in.	192.0	3.648
Fineness ratio	9.0677	9.0677
Area - ft^2		
Max cross-sectional	201.062	0.0726
Planform		
Wetted		
Base		
WP of BSRM centerline, (X_T), in.	400.0	7.600
FS of BSRM nose (X_T), in.	672.0	12.768

TABLE III. - Continued.

MODEL COMPONENT: T10 External Tank

GENERAL DESCRIPTION: External Oxygen Hydrogen Tank

Configuration to which the Orbiter and the Two Solid Rocket Motors attach

Body of revolution

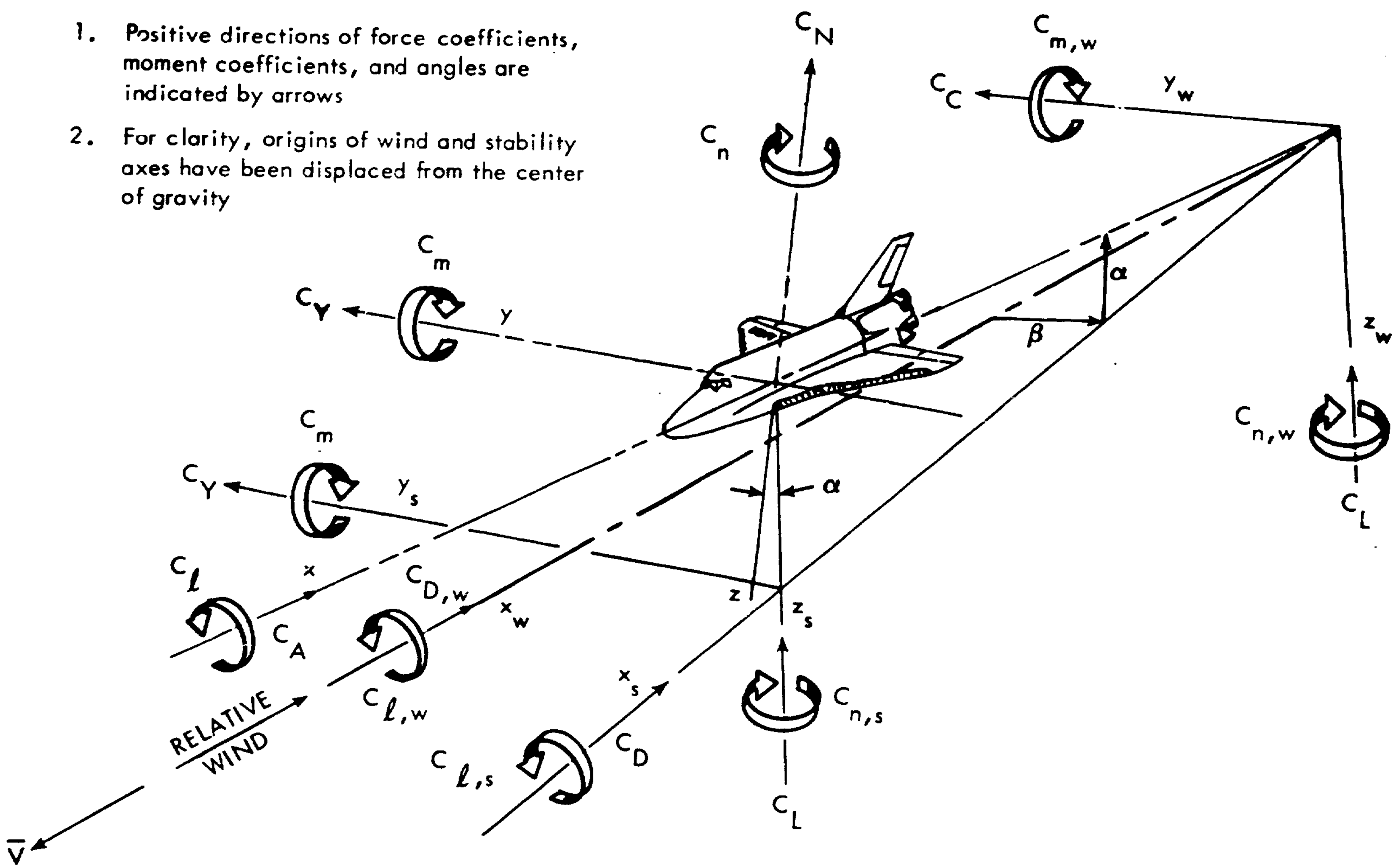
Model Scale = 0.019

DRAWING NUMBER: VL-70-000088 VL-78-000041

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length, IN (Nose @ X_t = 309.0)	1865.0	35.435
Max. Width (Dia.), IN	324.0	6.156
Max. Depth	-	-
Fineness Ratio	5.75617	5.75617
Area Ft^2		
Max. Cross-Sectional	572.56	0.2067
Planform	-	-
Wetted	-	-
Base	-	-
W.P. of Tank Centerline, (X_t) IN	400.0	7.600

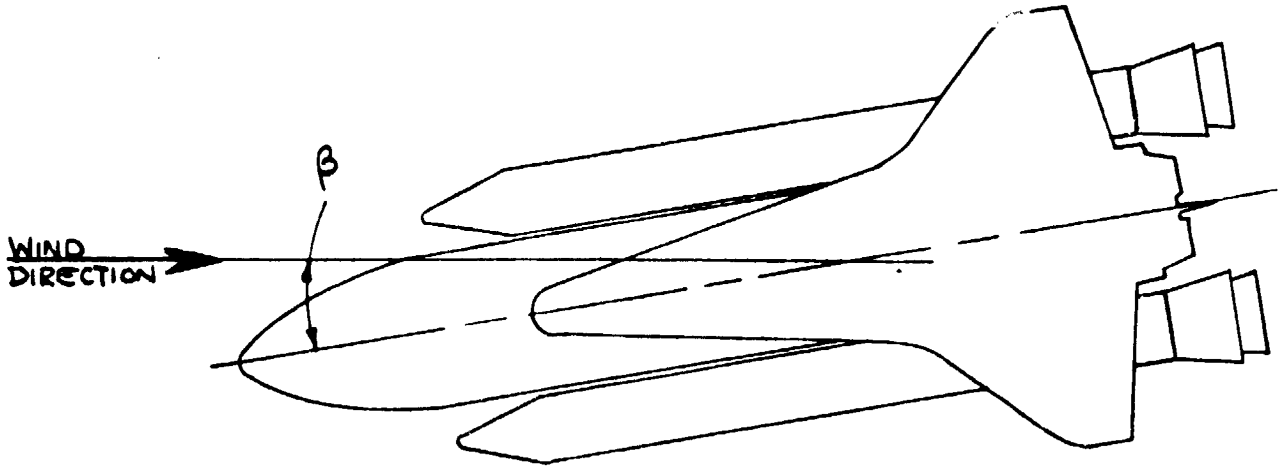
Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

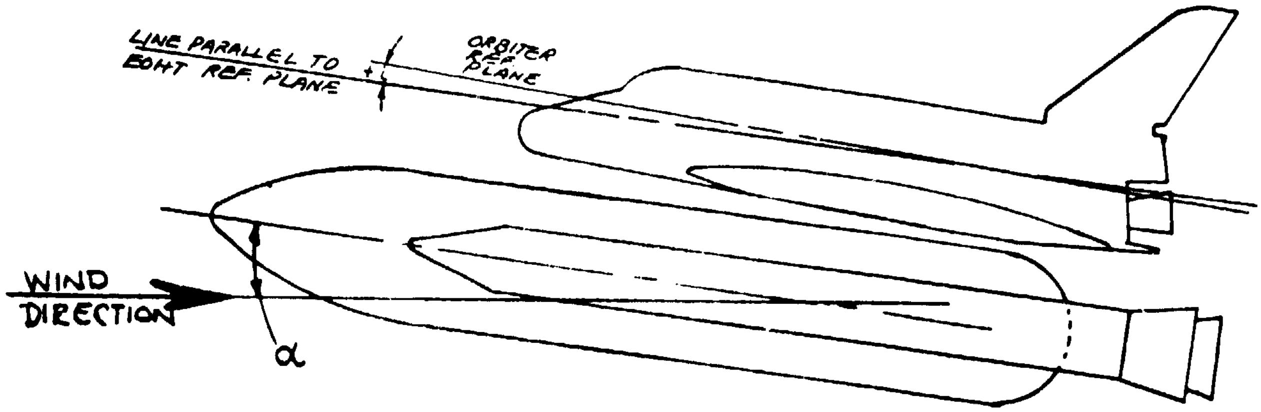


a. General

Figure 1. Axis systems.

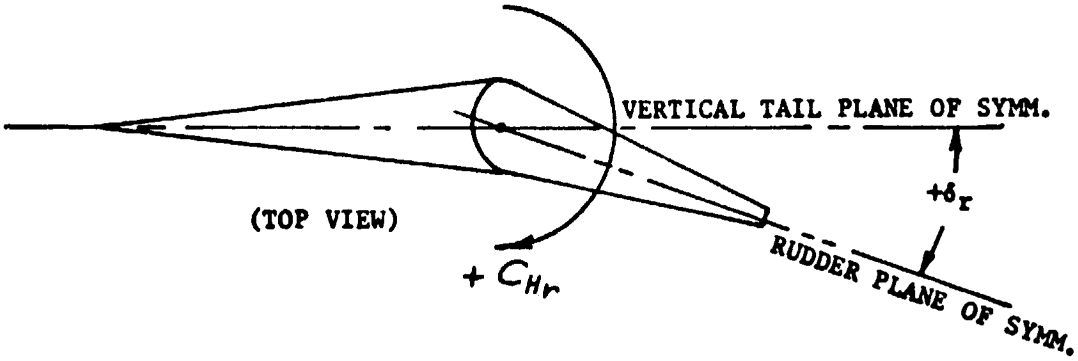


ANGLE OF SIDESLIP DEFINED (β)

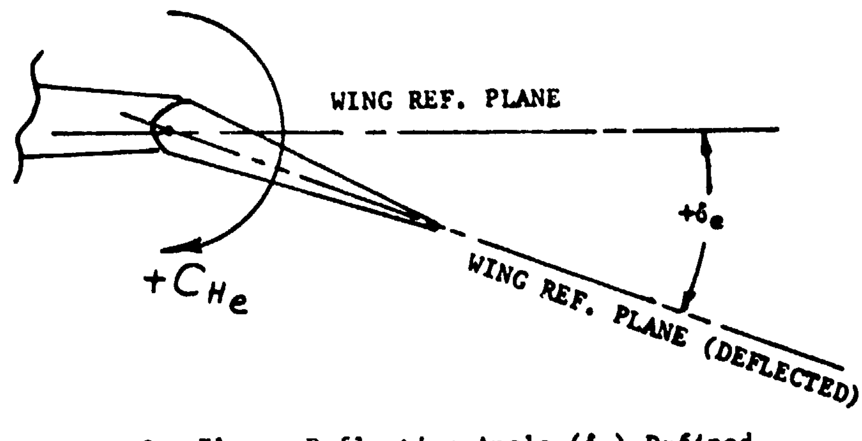


b. (α) ANGLE OF ATTACK AND ANGLE OF INCIDENCE (i) DEFINED

Figure 1 - Continued.

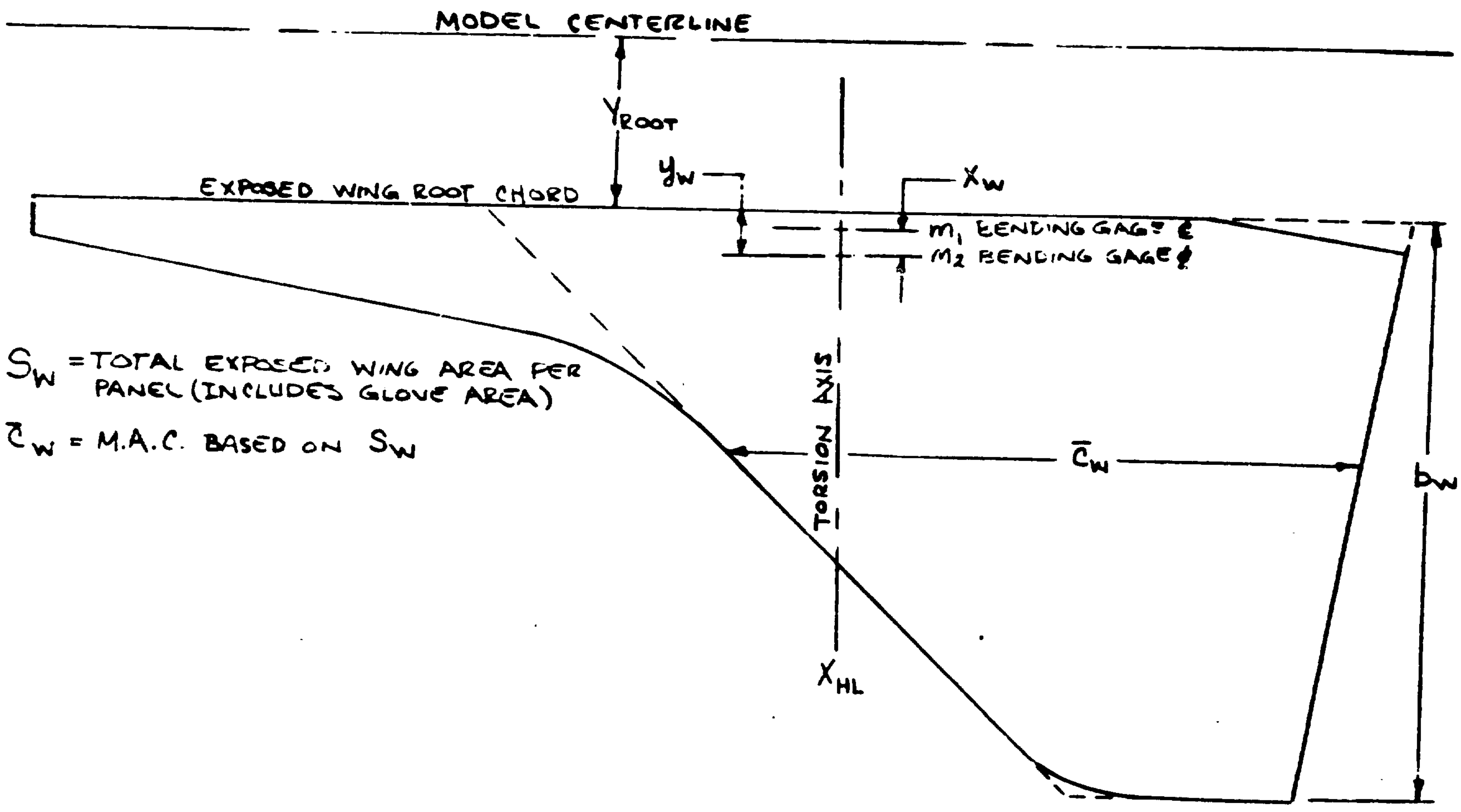


Rudder Deflection Angle (δ_r) Defined



c. **Elevon Deflection Angle (δ_e) Defined**

Figure 1 - Continued.



d. WING HINGE MOMENT DATA REDUCTION DIMENSIONS DEFINED

Figure 1 - Continued.

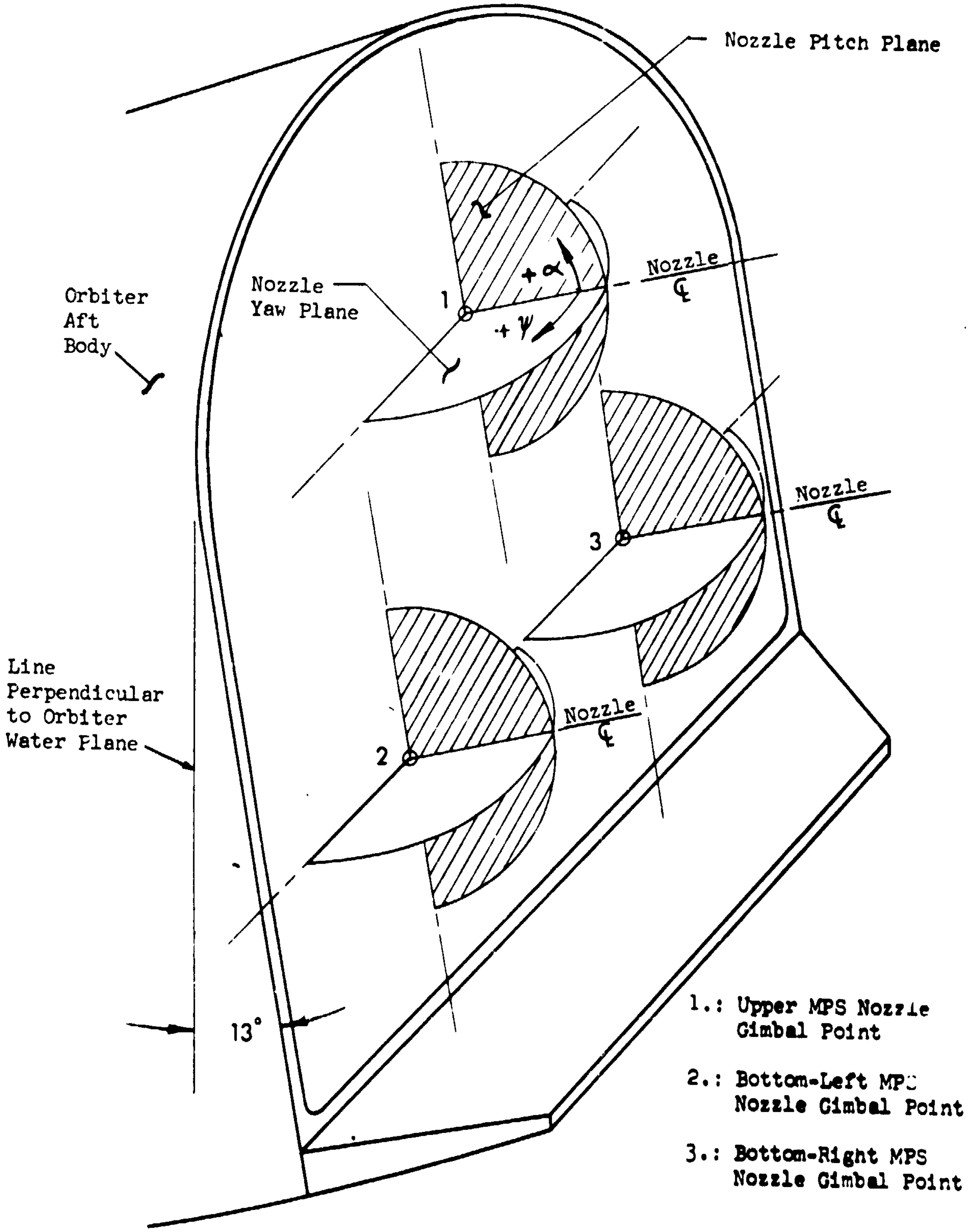


Figure 1e. Gimbal Planes and Sign Conventions

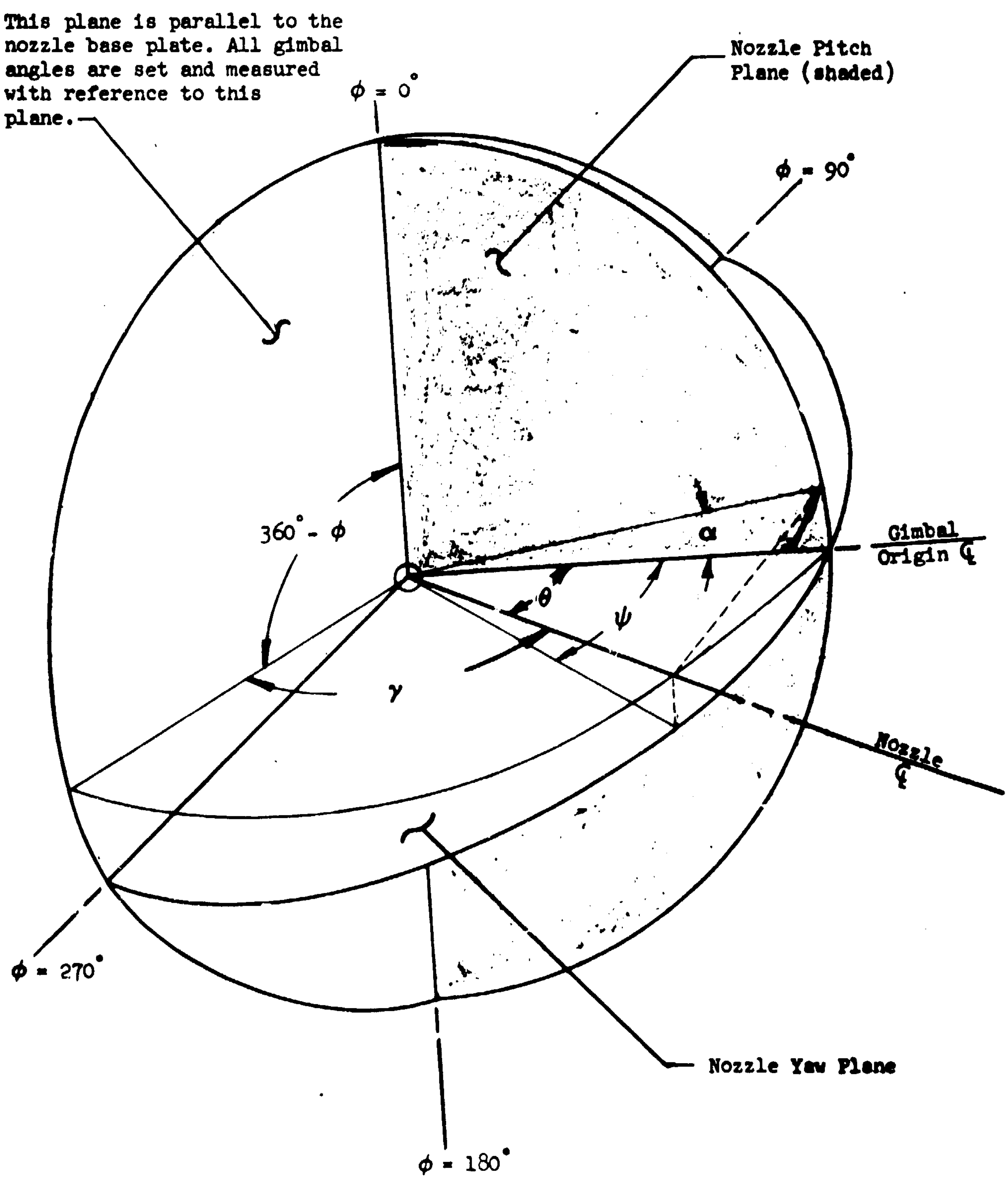


Figure 1f. Nozzle Gimbal Angle Defined

a. ASCENT VEHICLE CONFIGURATION

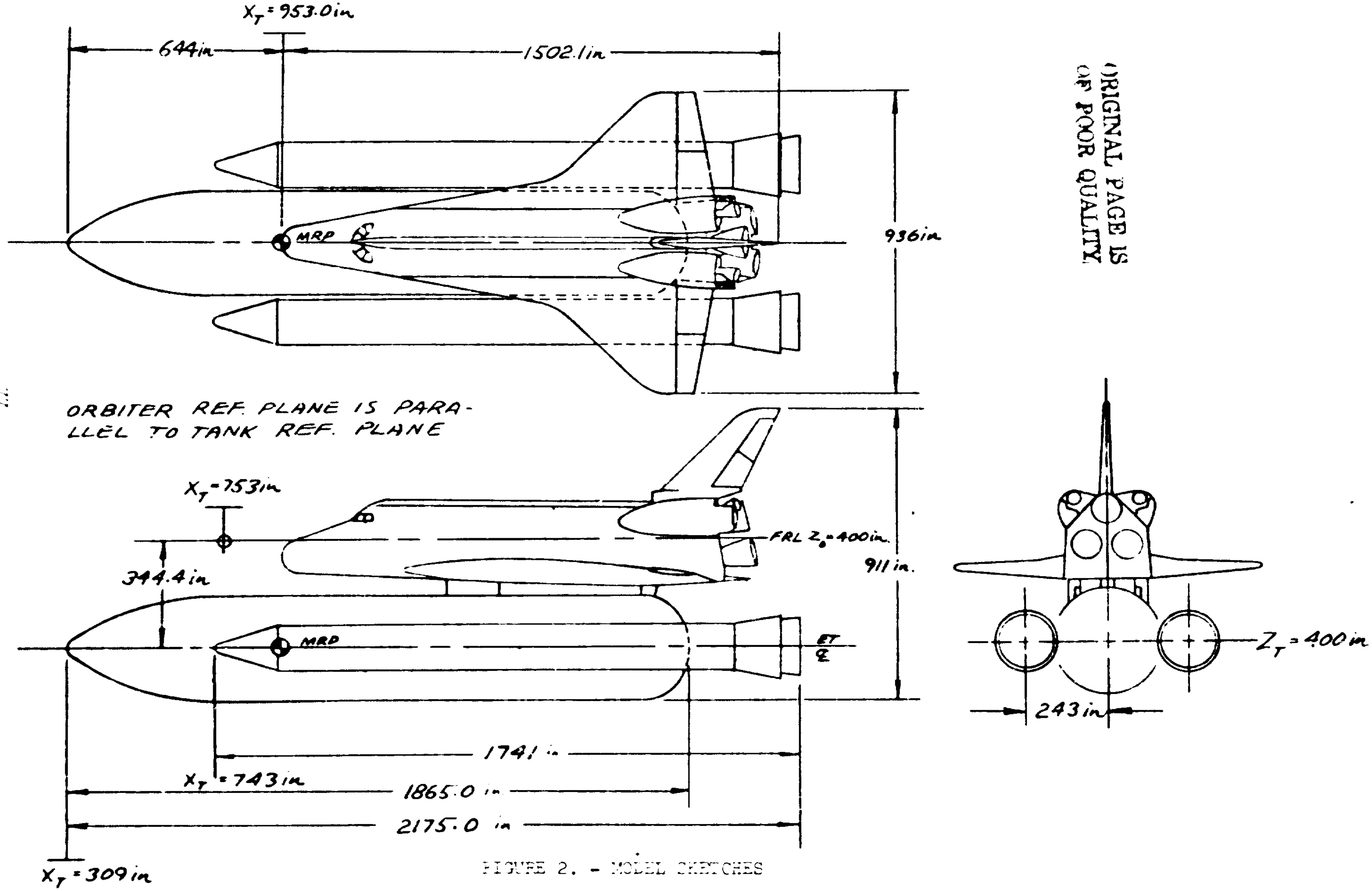


FIGURE 2. - MODEL SKETCHES

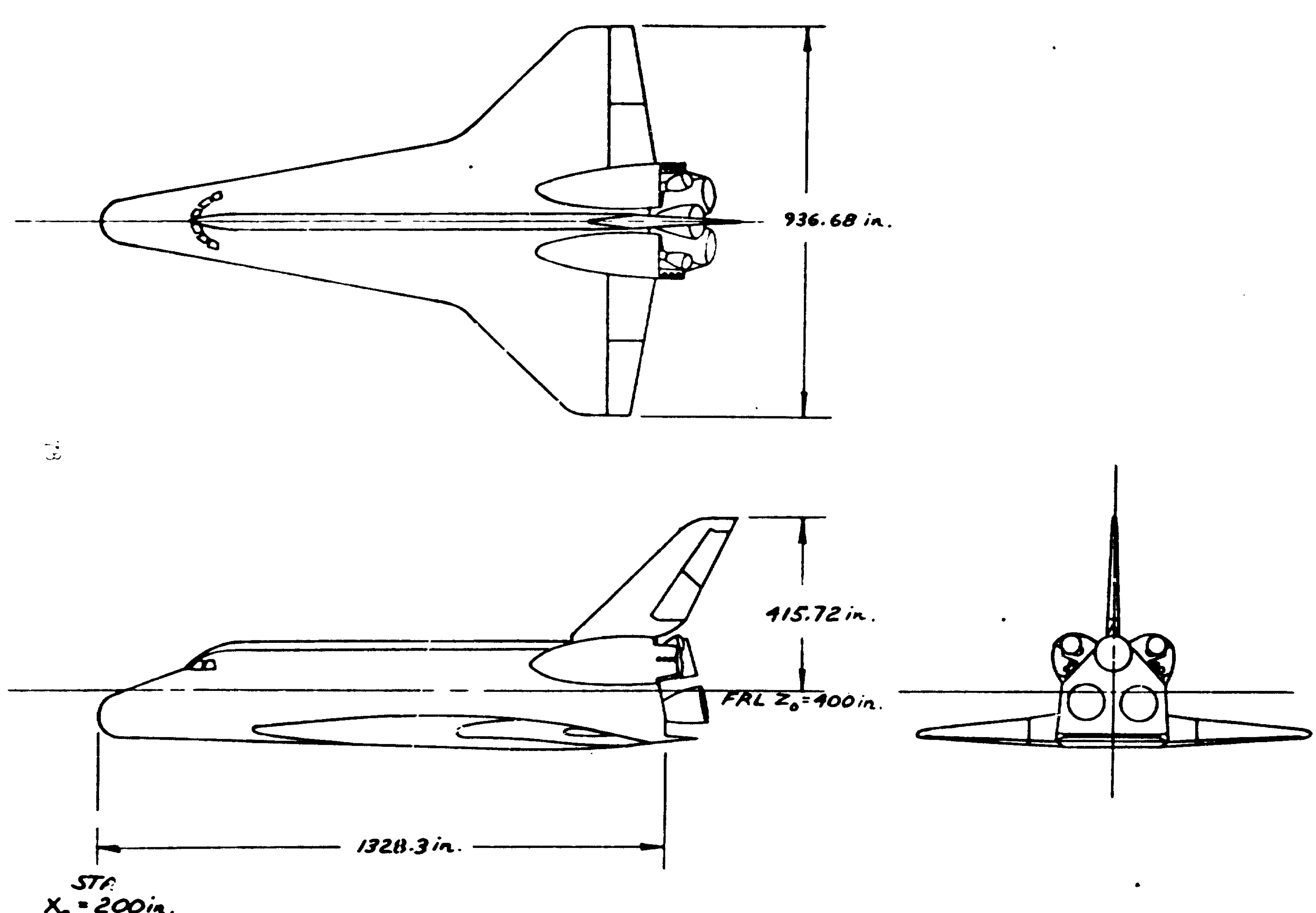
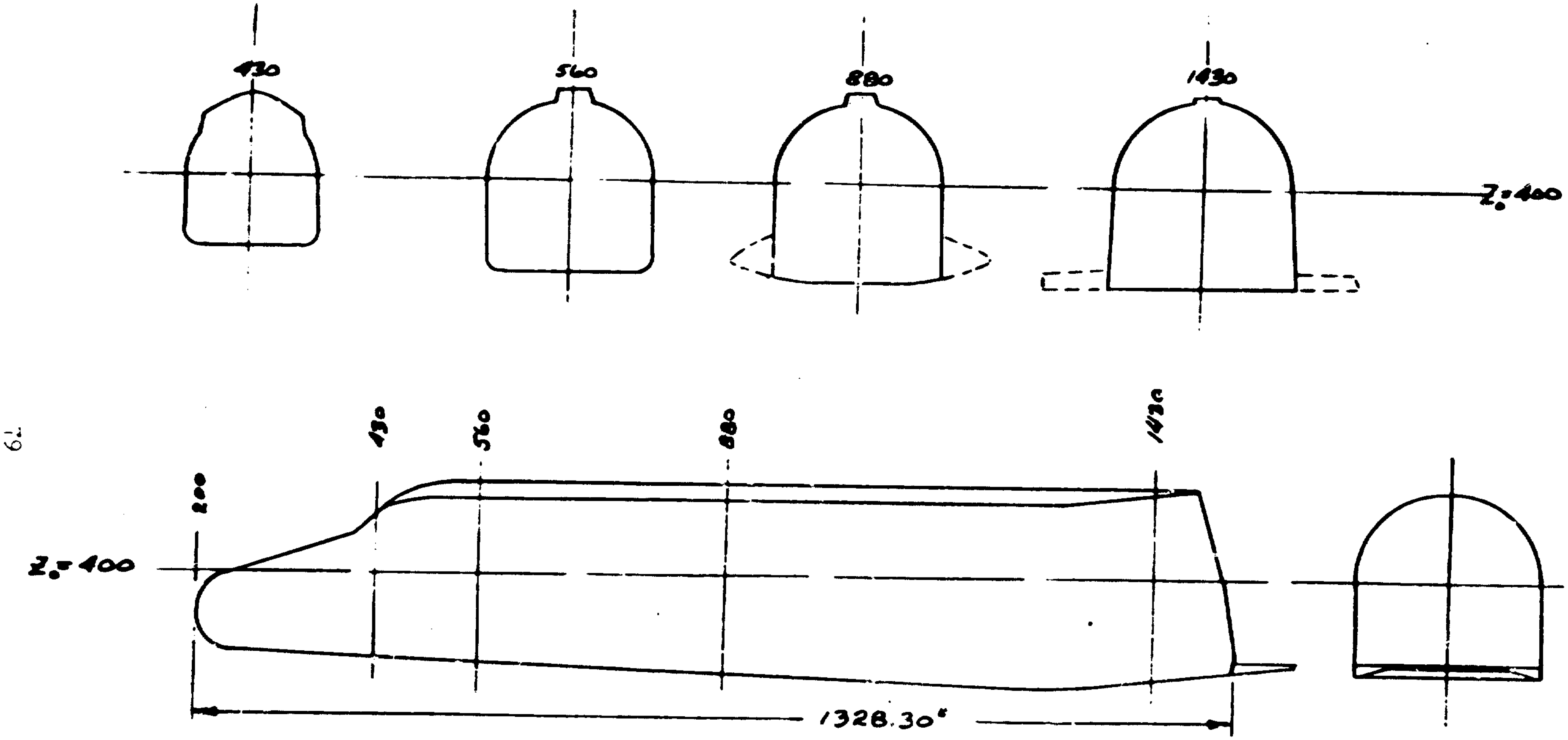


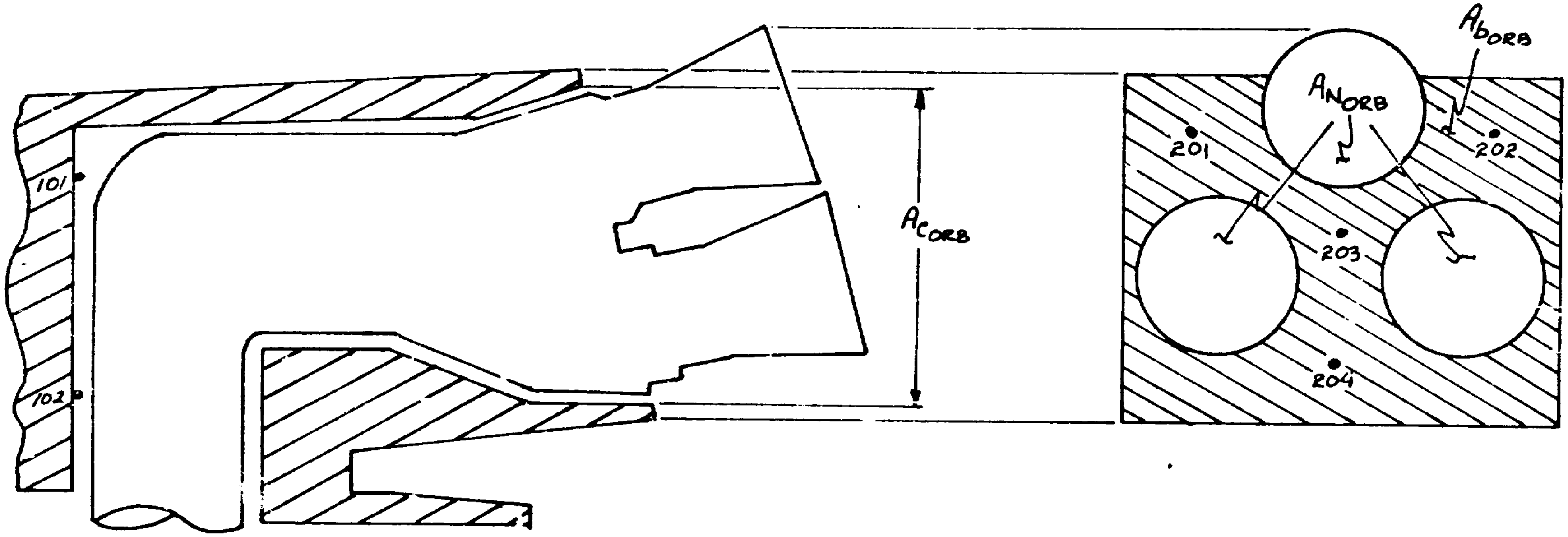
Figure 2 - Continued.

b. 2A ORBITER CONFIGURATIONS, O_1 AND O_2



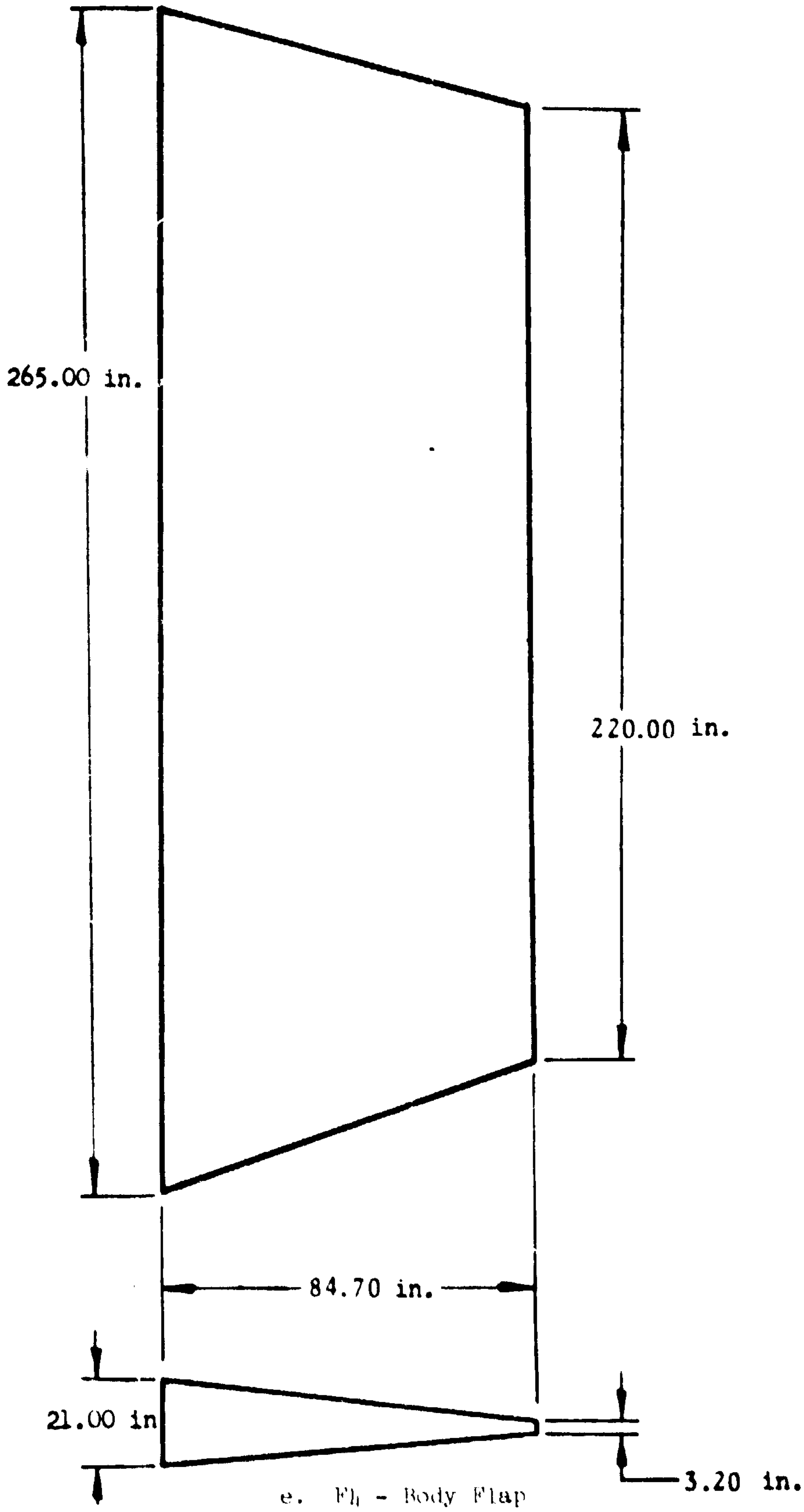
c. BASIC 2A FUSELAGE WITH BODY FLAP; δ_{10}

Figure 2 - Continued.

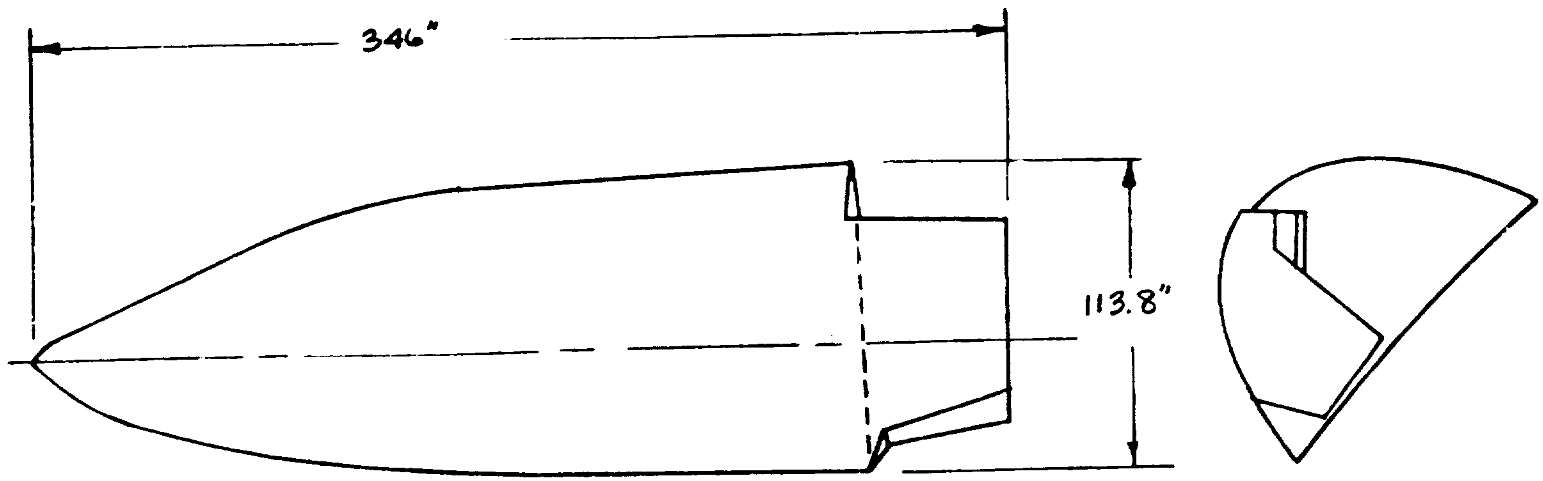


d. *Orbiter Base and Cavity Pressure Tap Locations*

Figure 2. - Continued.

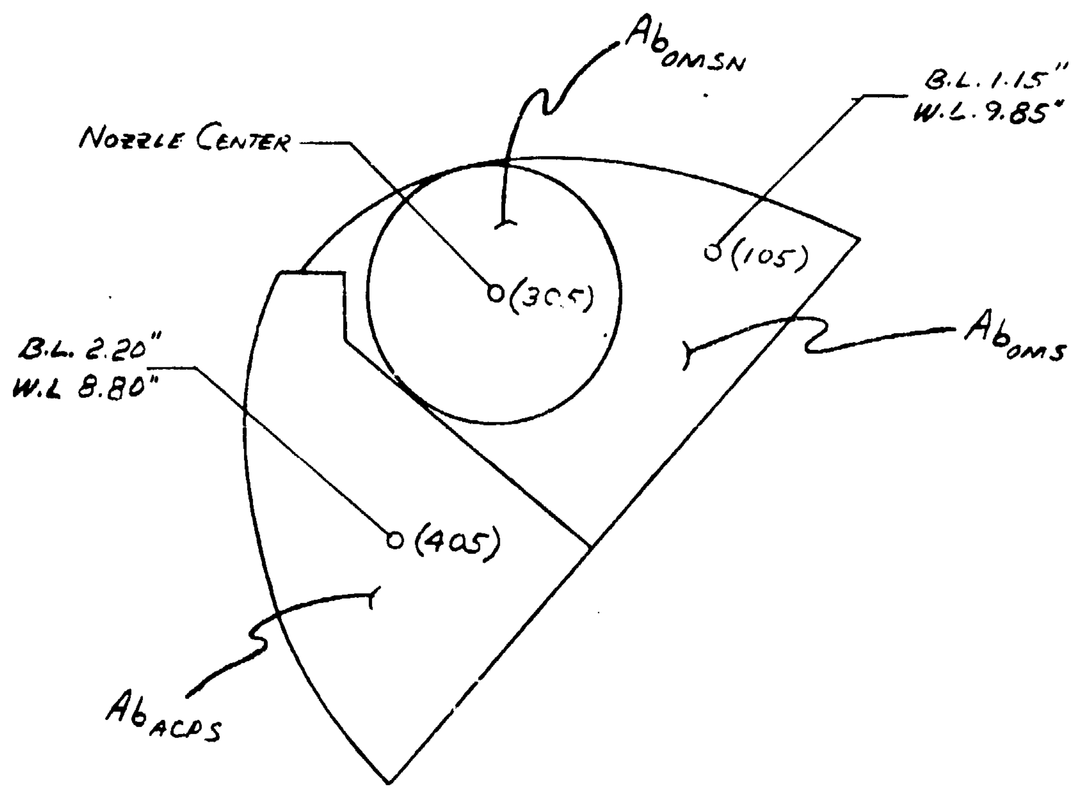


e. Fh - Body Flap
Figure 2. - Continued.



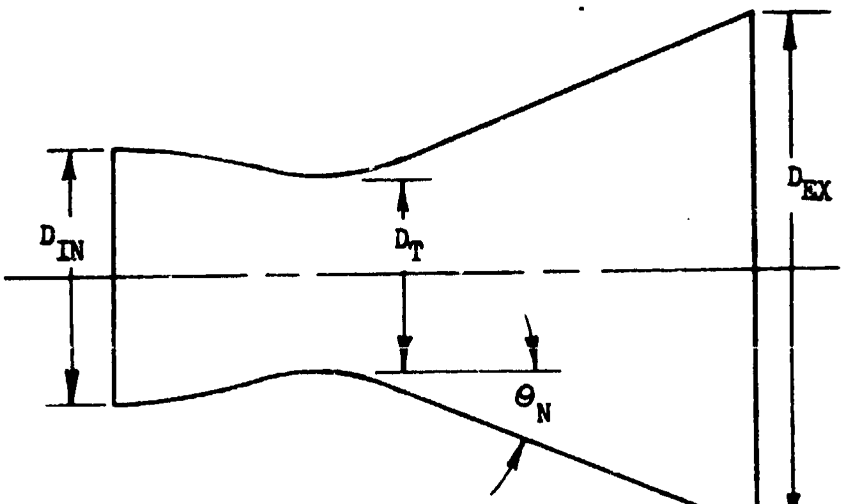
f. OMS POD CONFIGURATION, M_3

Figure 2. - Continued.



g. OMS POD BASE
STATIC PRESSURE TAP LOCATIONS

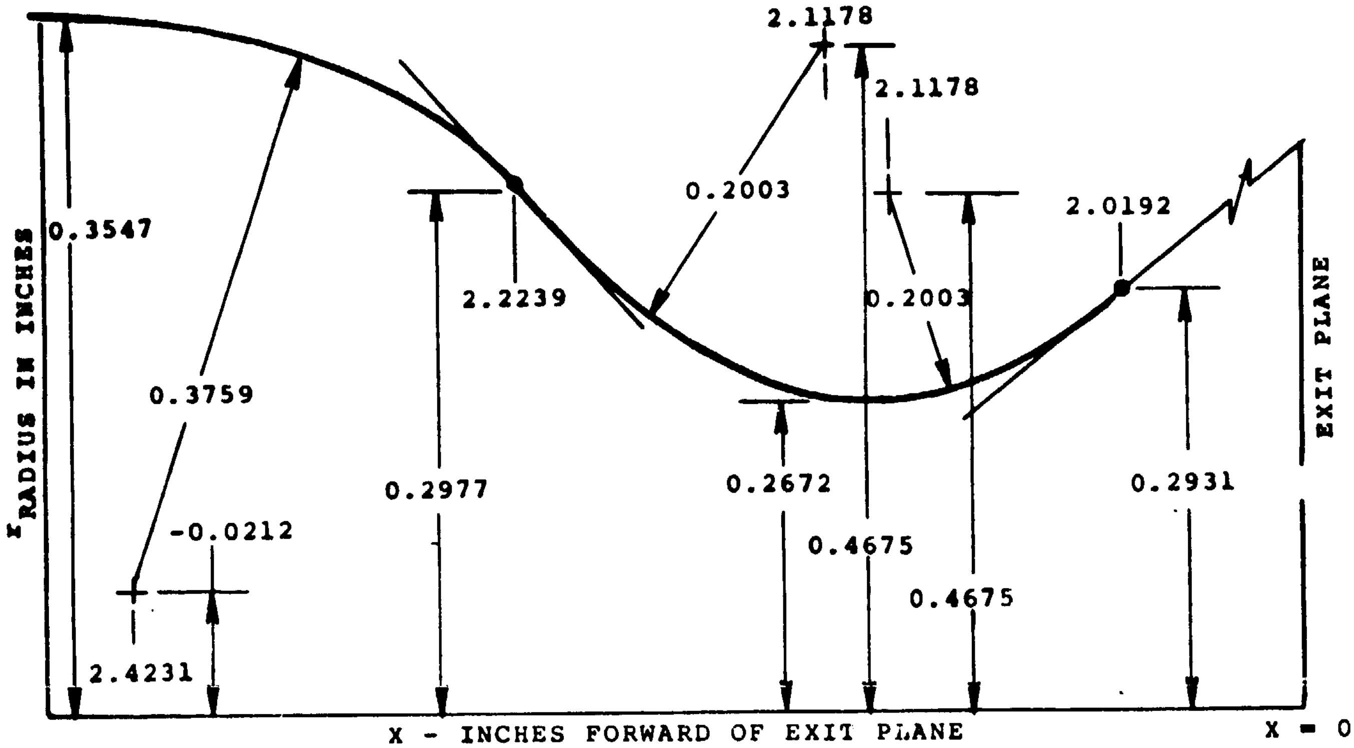
Figure 2. - Continued.



h. BASIC NOZZLE DIMENSIONS

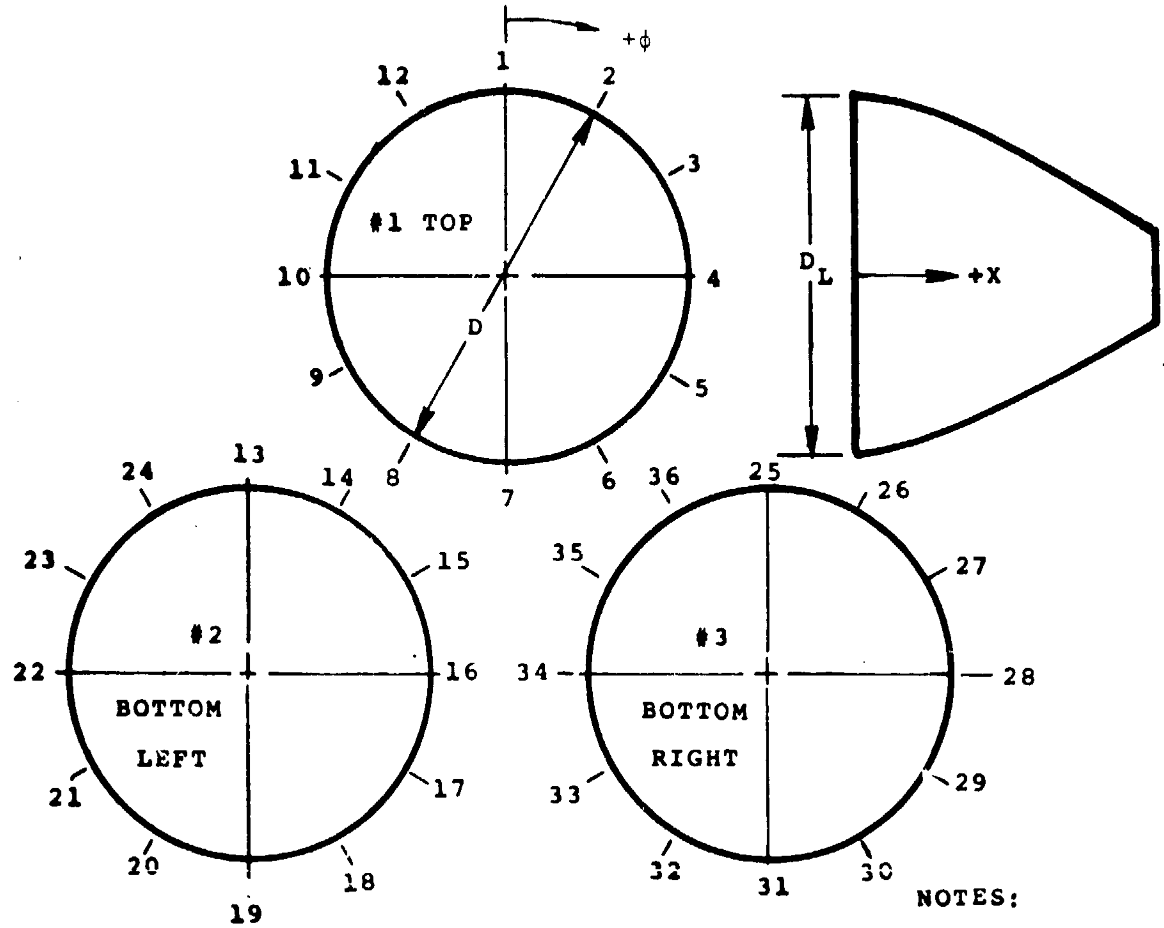
Figure 7. - Continued.

NOTE: SKETCH DIMENSIONS ARE INCHES
MODEL SCALE



X/r*	r/r*	X/r*	r/r*
0	3.2257 (EXIT PLANE	3.6999	2.5393
0.1097	3.2107	3.9169	2.4828
0.3365	3.1793	4.0378	2.4525
0.5879	3.1430	4.1718	2.4165
0.8660	3.1010	4.3215	2.3754
1.0101	3.0786	4.4862	2.3286
1.3342	3.0258	4.6980	2.2665
1.6437	2.9727	4.8990	2.2055
1.8428	2.9368	5.0303	2.1639
2.0992	2.8892	5.1969	2.1104
2.2421	2.8615	5.3945	2.0442
2.4012	2.8301	3.6396	1.9585
2.5782	2.7942	5.7848	1.9053
2.7743	2.7530	5.9188	1.8552
2.9918	2.7058	6.1246	1.7754
3.1995	2.6591	6.3593	1.6796
3.4008	2.6123	6.5565	1.5954
3.5307	2.5808	6.7013	1.5307
		6.9143	1.4315
		7.1815	1.7665
		7.2455	1.2665
		7.4502	1.1568
		7.5569	1.0969

Figure [illegible]. (Cont'd)
i. Nozzles N_9 and N_{10}



NOTES:

- D_{AVG} = 71.0"

θ (DEG)	X/D	TAP NO.	D_L/D_{AVG}
0	.058	1,13,25	1.2817
30	.928	2,14,26	.6789
60	.753	3,15,27	.8592
90	.580	4,16,28	1.0141
120	.406	5,17,29	1.1479
150	.232	6,18,30	1.2324
180	.058	7,19,31	1.2817
210	.928	8,20,32	.6789
240	.753	9,21,33	.8592
270	.580	10,22,34	1.0141
300	.406	11,23,35	1.1479
330	.232	12,24,36	1.2324

J. Orbiter Nozzle, N_{10}, Pressure Orifice Locations

Figure 2. - Continued.

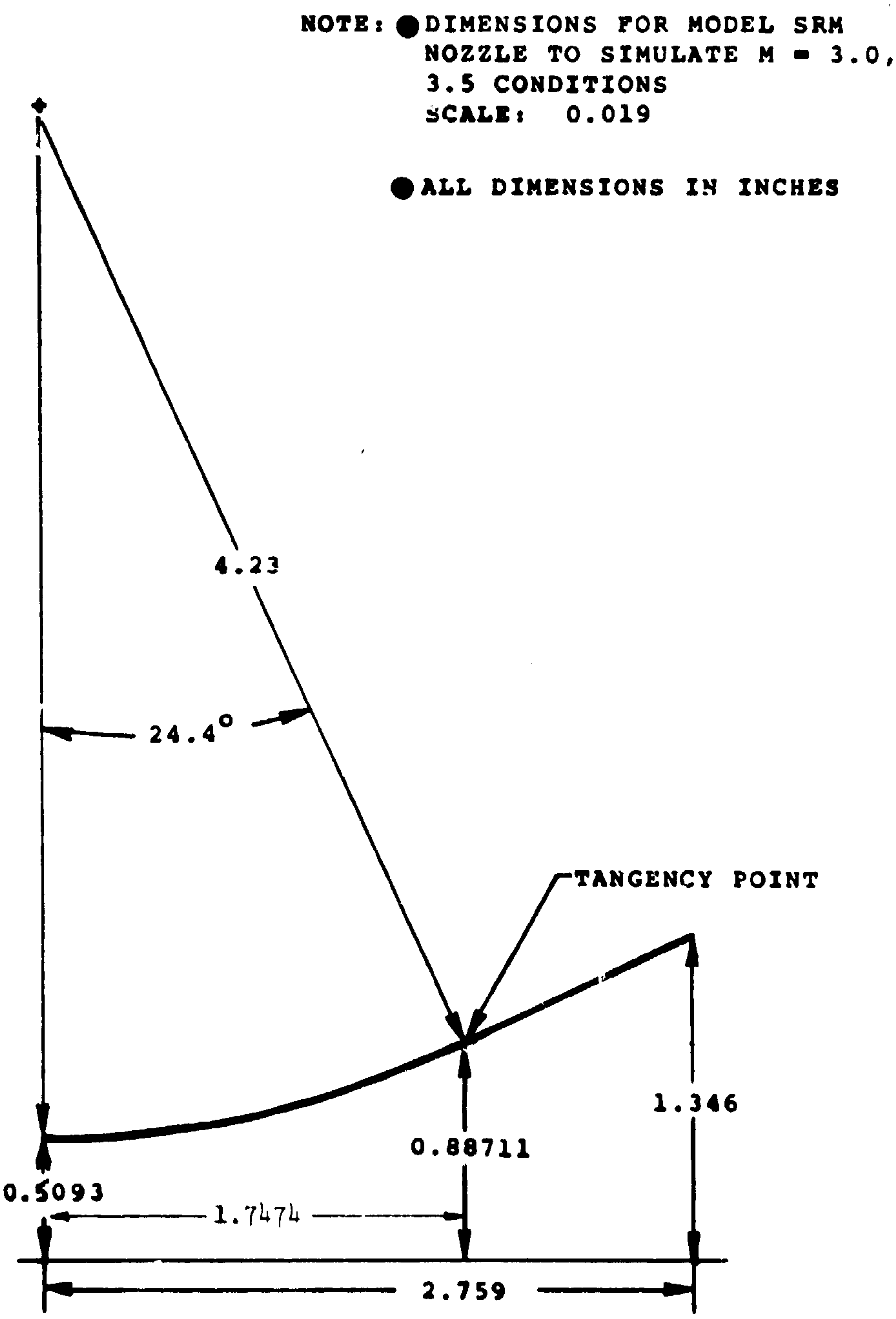
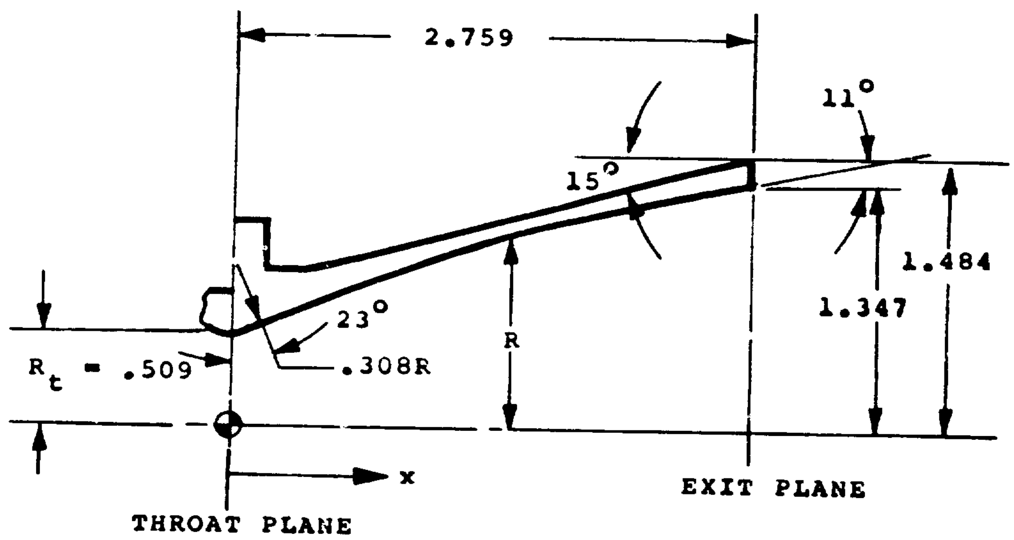


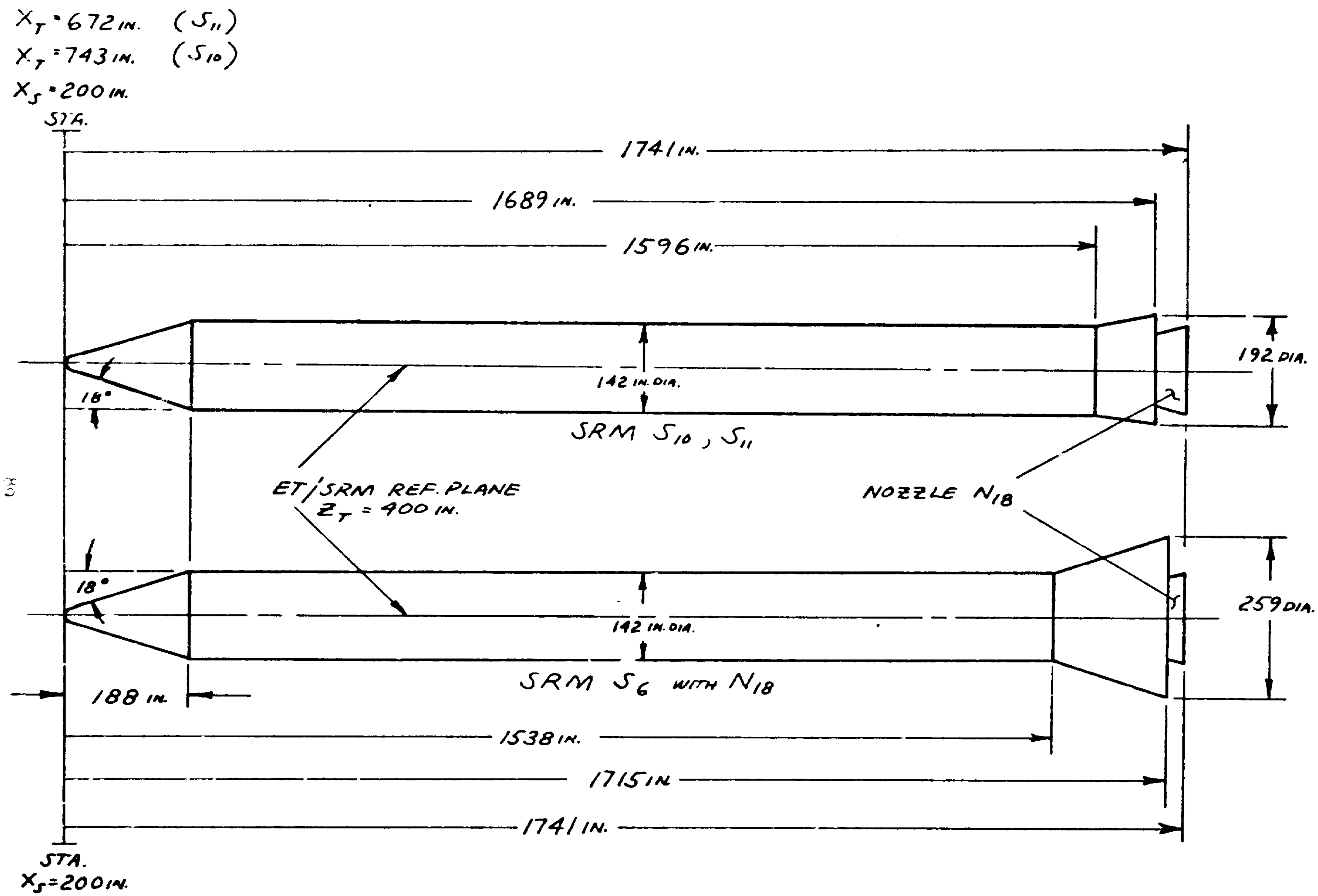
Figure 2. (Cont'd)
k. Nozzle, N_{18}, Internal Contour

COORDINATES AXIAL X/R_t	RADIAL R/R_t	GEOMETRY DESCRIPTION
0.0	1.000	THROAT PLANE
0.04689	1.00184	CIRCULAR ARC SECTION
0.11719	1.01155	
0.16409	1.02286	
0.21098	1.03832	
0.23443	1.04766	CONICAL SECTION
0.54862	1.18106	CONICAL SECTION
0.80001	1.28777	CONICAL SECTION
0.86284	1.31443	CONTOURED SECTION
1.13502	1.42312	
1.50148	1.57291	
1.93249	1.73122	
2.29137	1.85372	
2.67702	1.97678	
3.08772	2.09868	
3.52342	2.21816	
3.98088	2.33472	
4.45984	2.44695	
4.79089	2.51908	
5.13099	2.58921	CONTOURED SECTION
5.42124	2.64578	EXIT PLANE



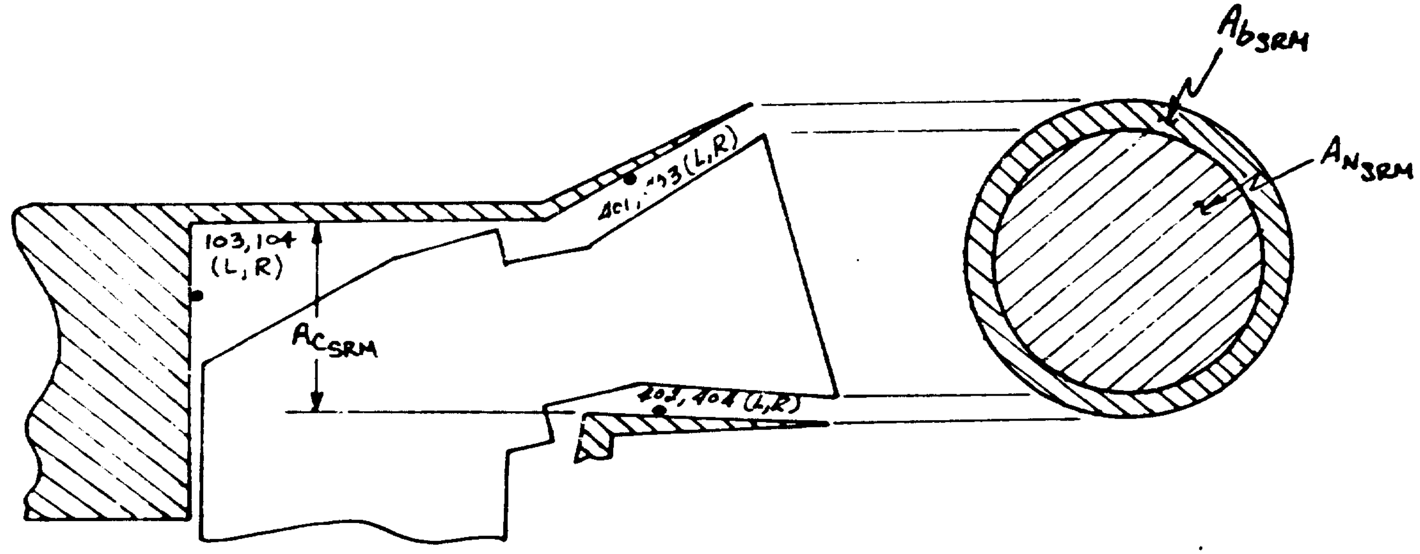
NOTE: SKETCH DIMENSIONS ARE INCHES, MODEL SCALE

Figure 2 (Cont'd)
ℓ. Nozzle, N_{17}, Internal Contour



m. SOLID ROCKET MOTOR CONFIGURATIONS

Figure 2. - Continued.



n. *SRM Pressure Tap Locations*

Figure 2. - Continued.

c. EXTERNAL TANK T_{10}

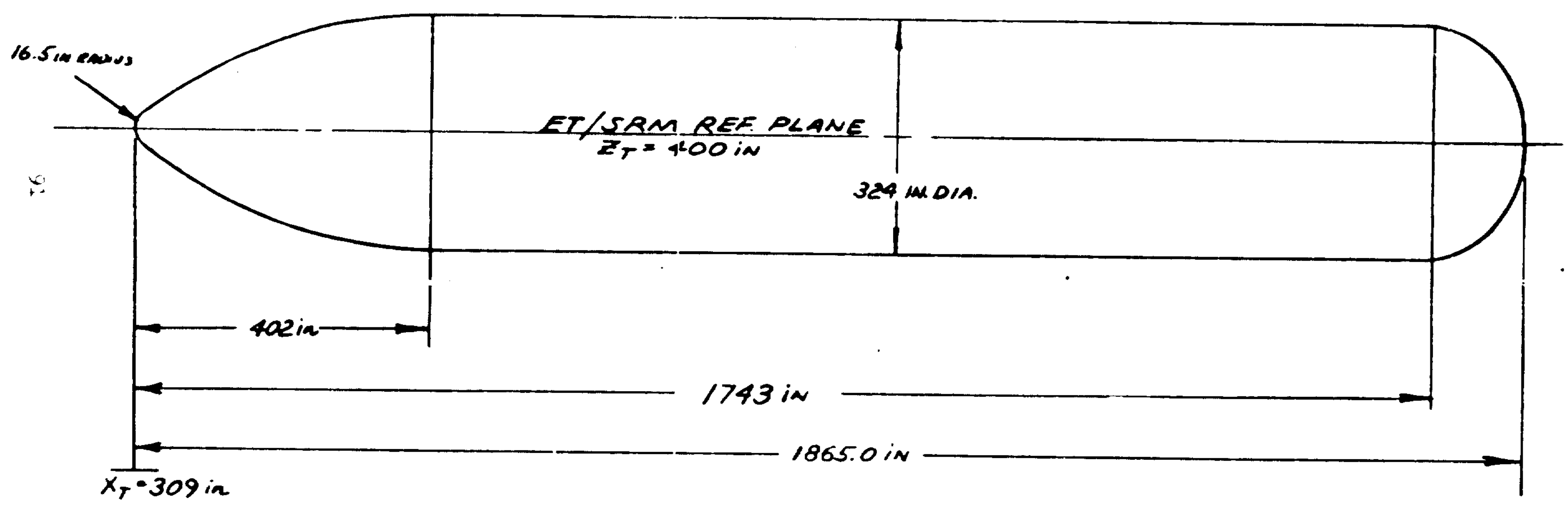
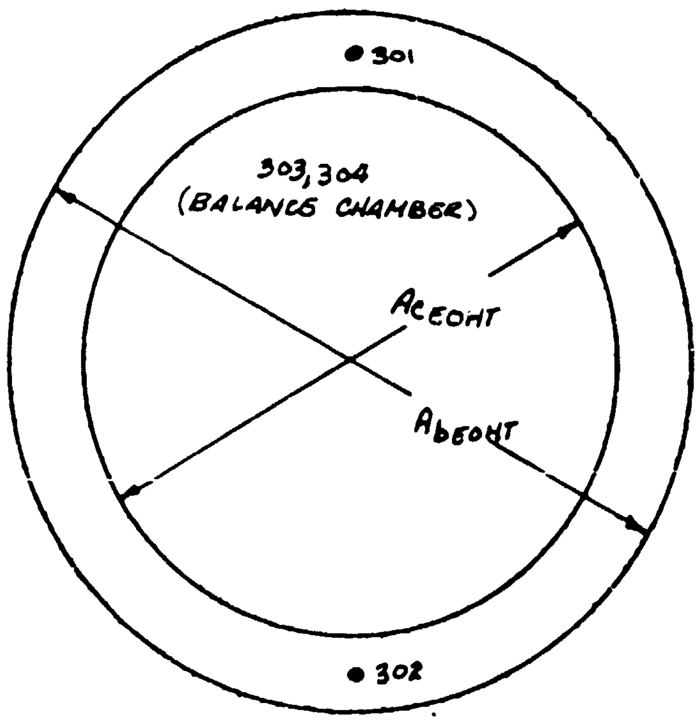
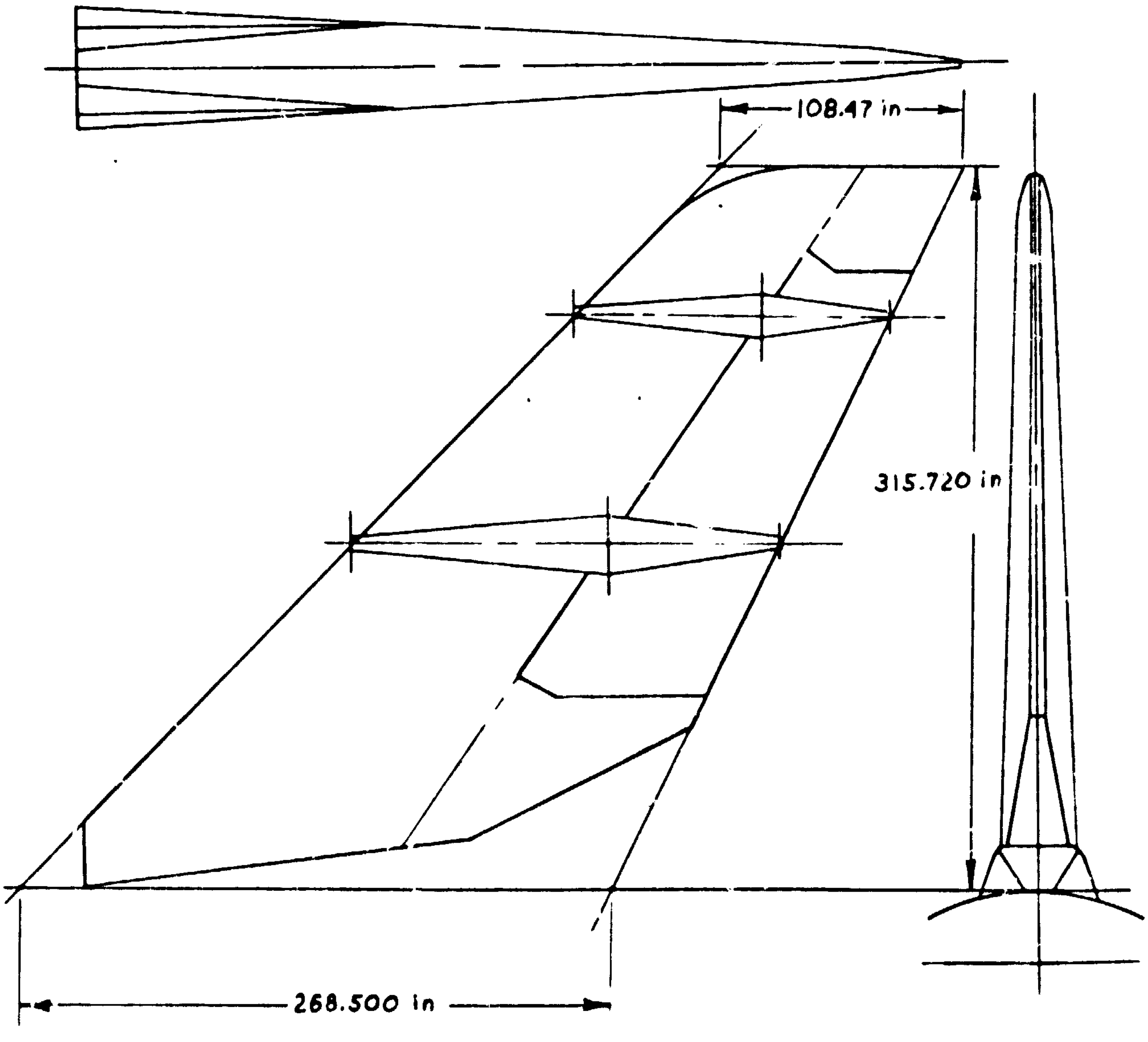


Figure 2. - Continued.



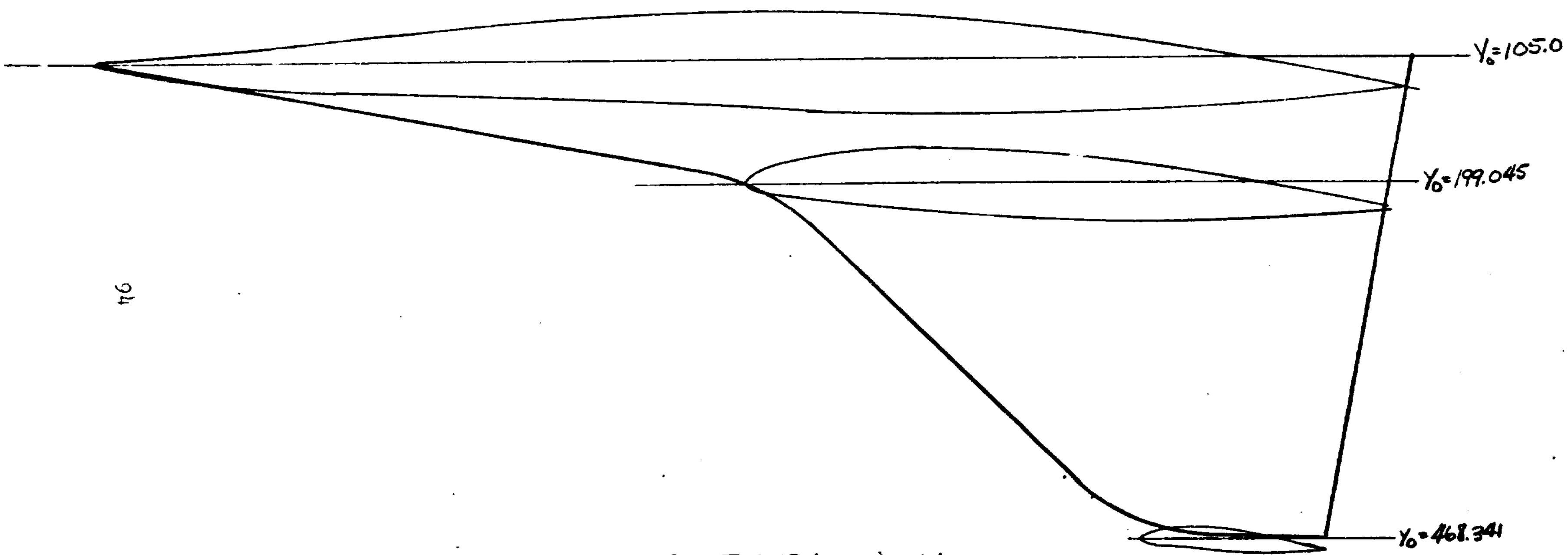
b. EOHT Pressure Tap Locations

Figure 2. - Continued.



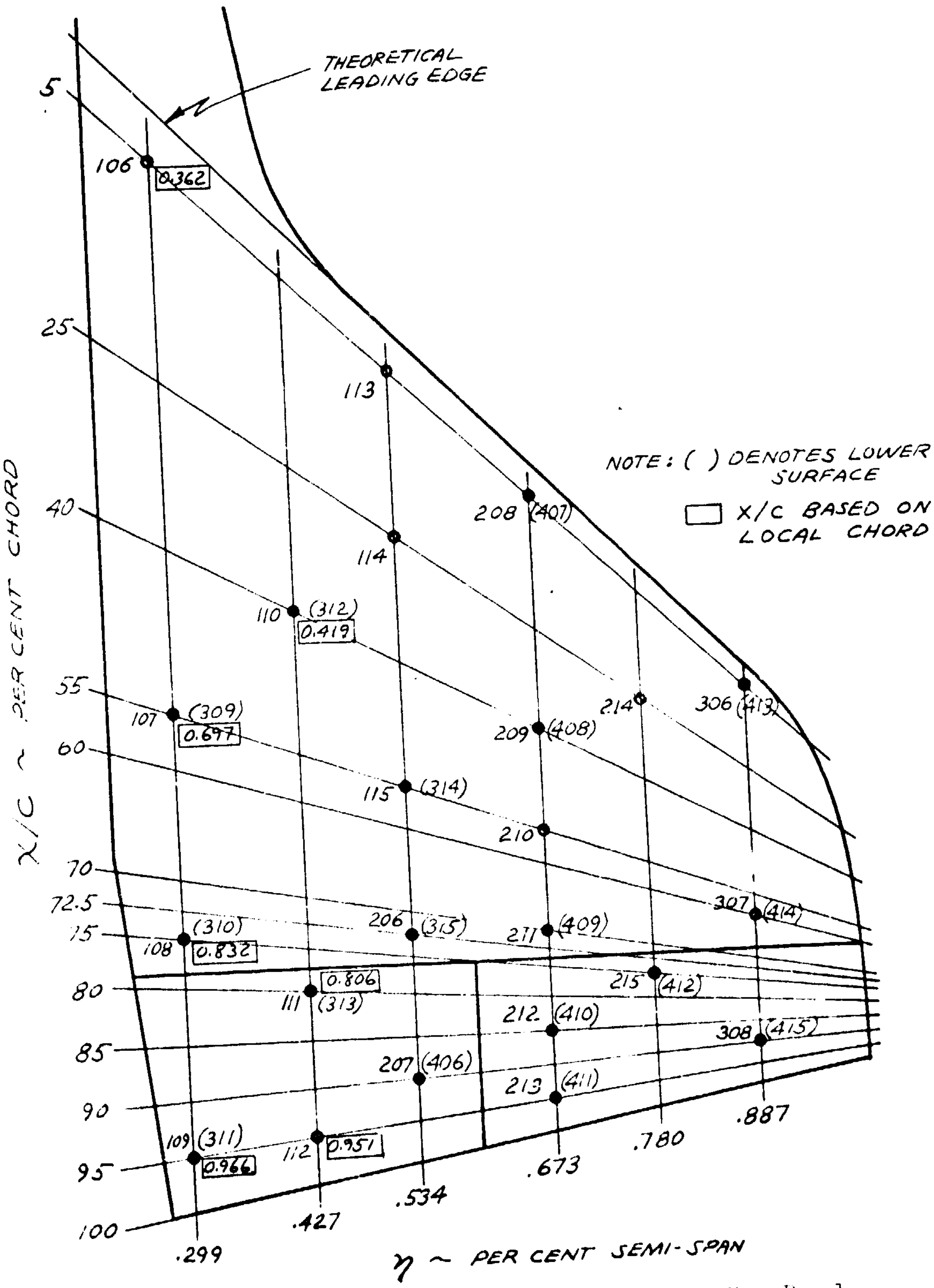
d. VERTICAL TAIL, V_5

Figure 2. - Continued.



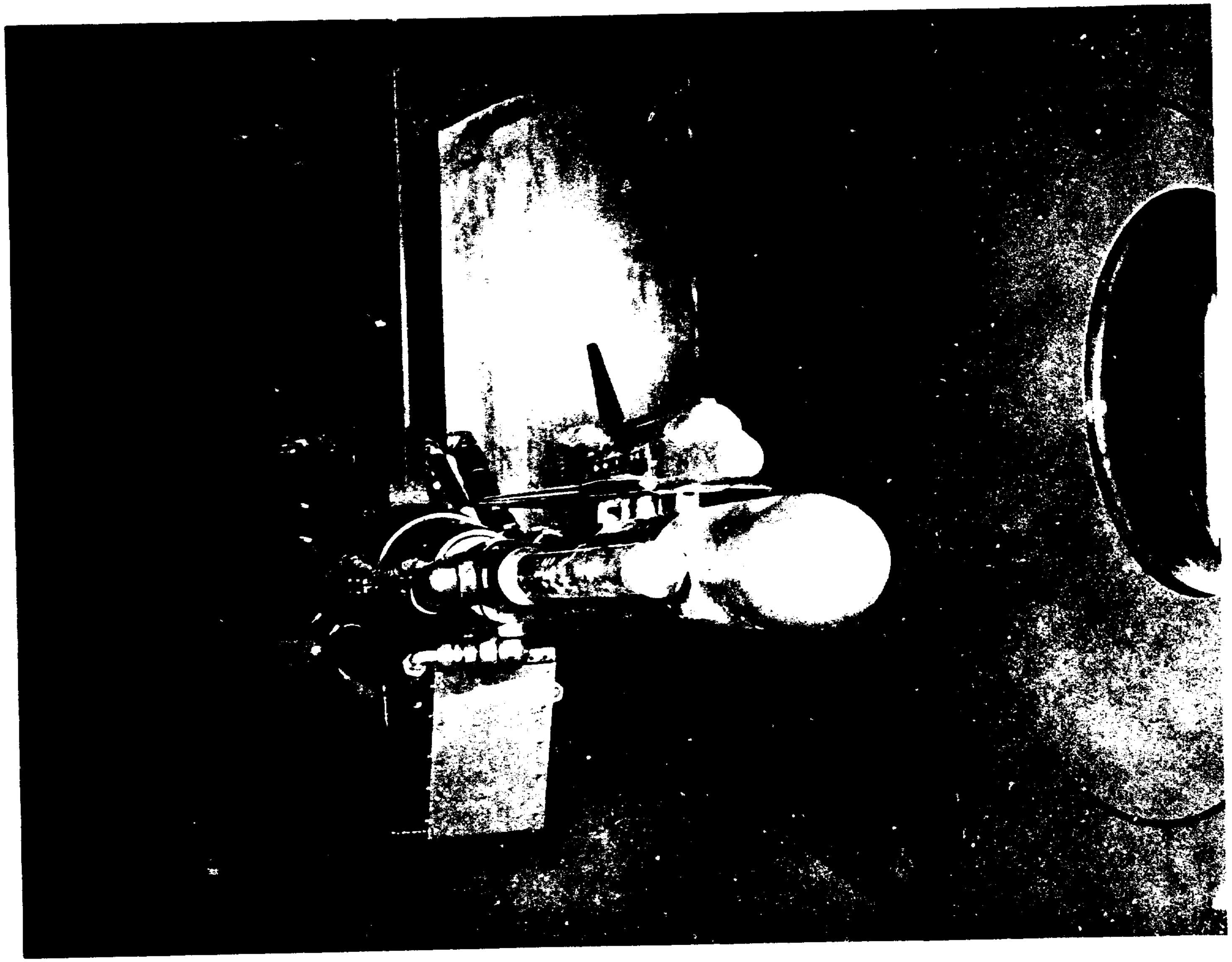
r. BASIC 2A WING CONFIGURATION, W_{87}

Figure 2. - Continued.



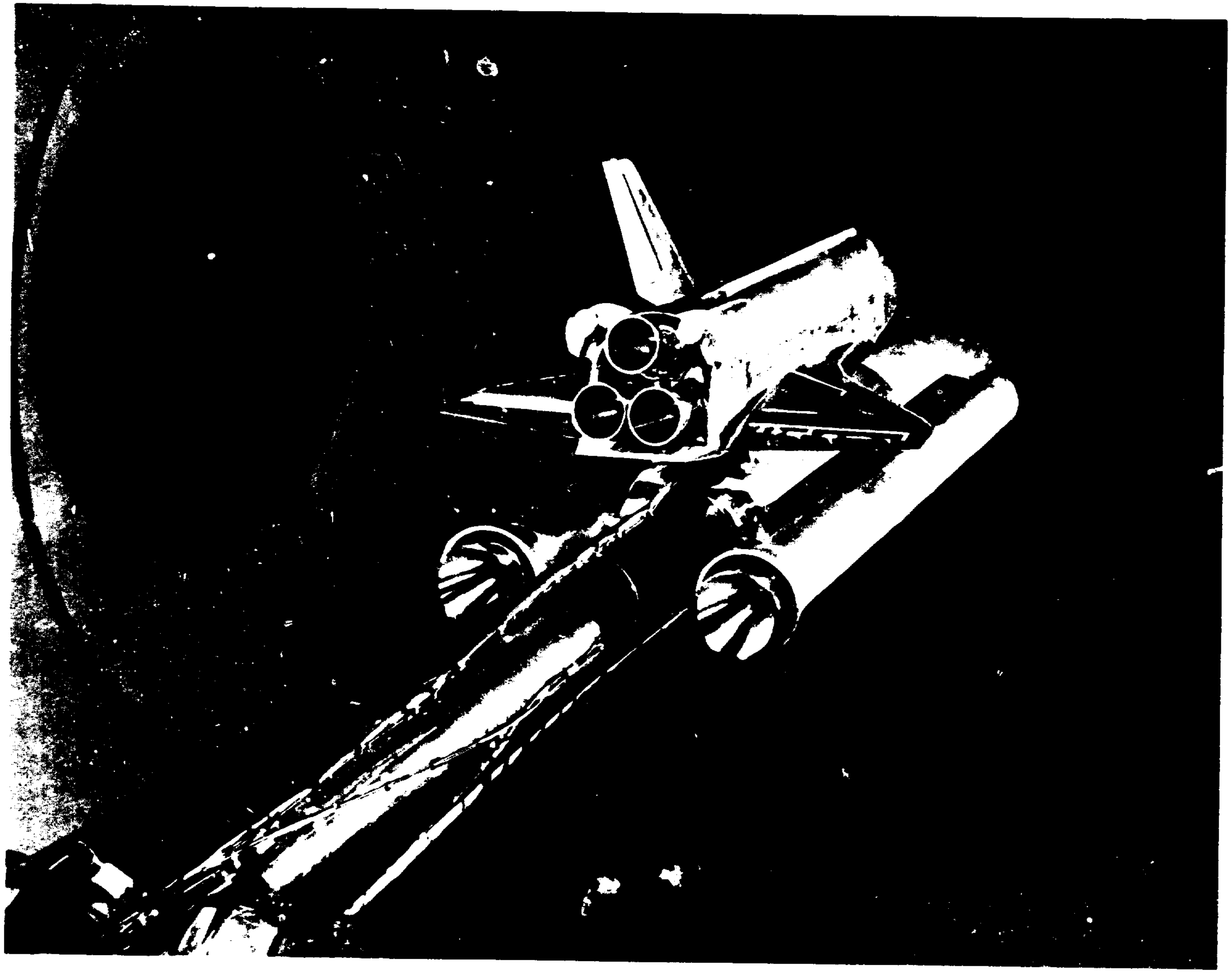
s. Wing Pressure Tap Locations for Righthand Wing Panel

Figure 2. - Concluded.



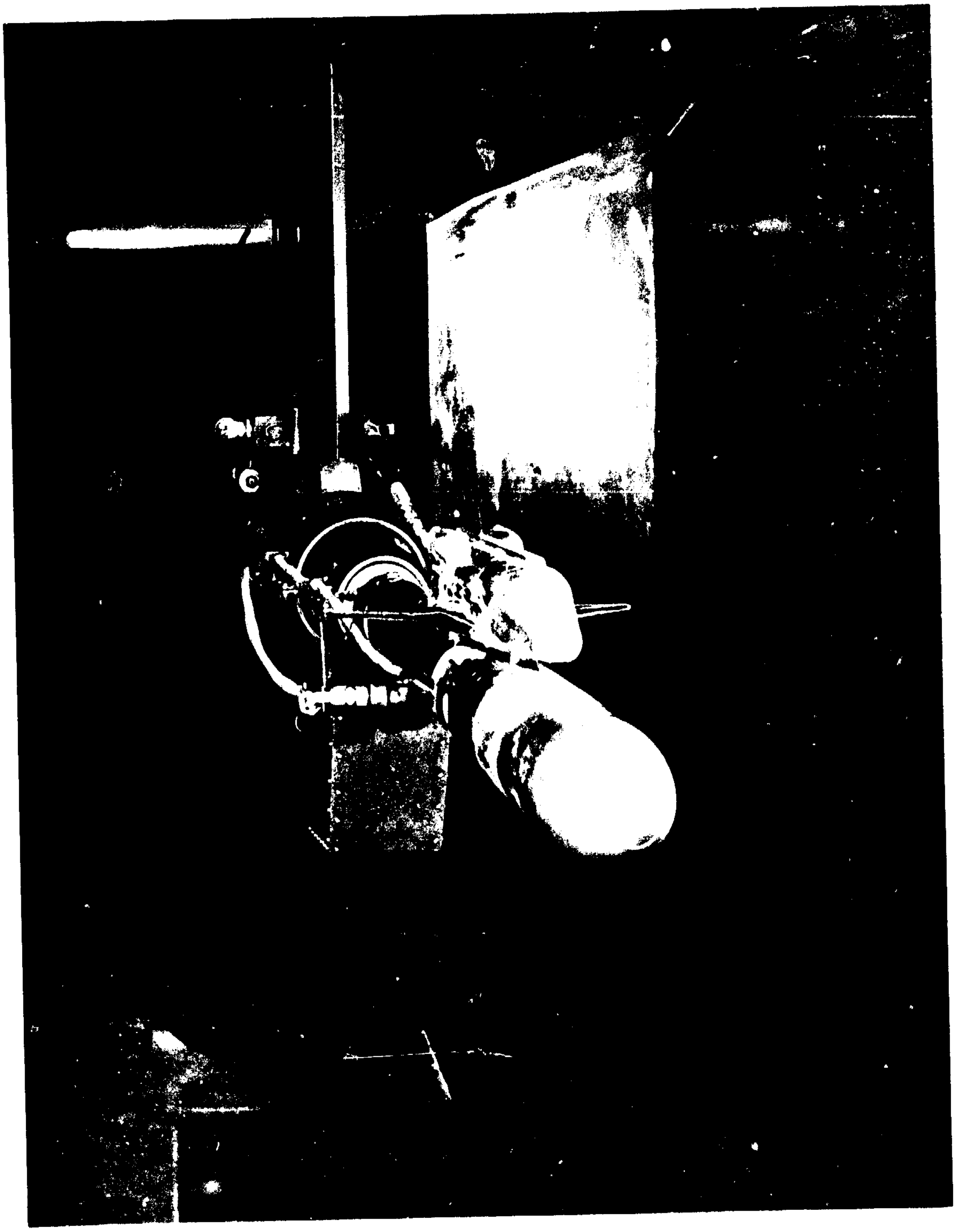
(a) Front view of launch vehicle with high pressure plumbing

Figure 3. - Model installation photographs.



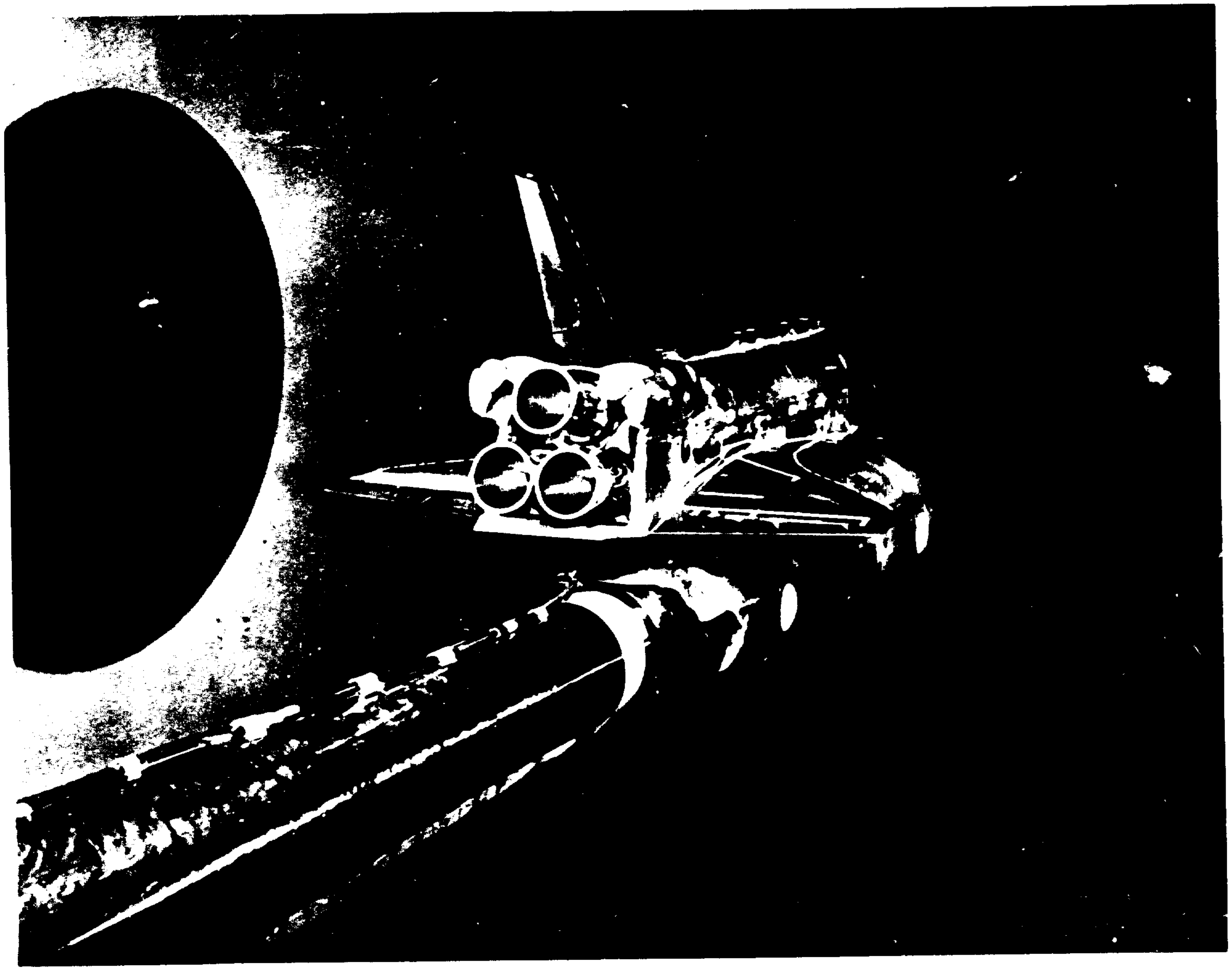
(b) Aft view of launch vehicle

Figure 3. - Continued.



(e) Front view of second stage (SRB's off)

Figure 3. - Continued.



(d) Aft view of second stage (SRB's off)

Figure 3. - Concluded.

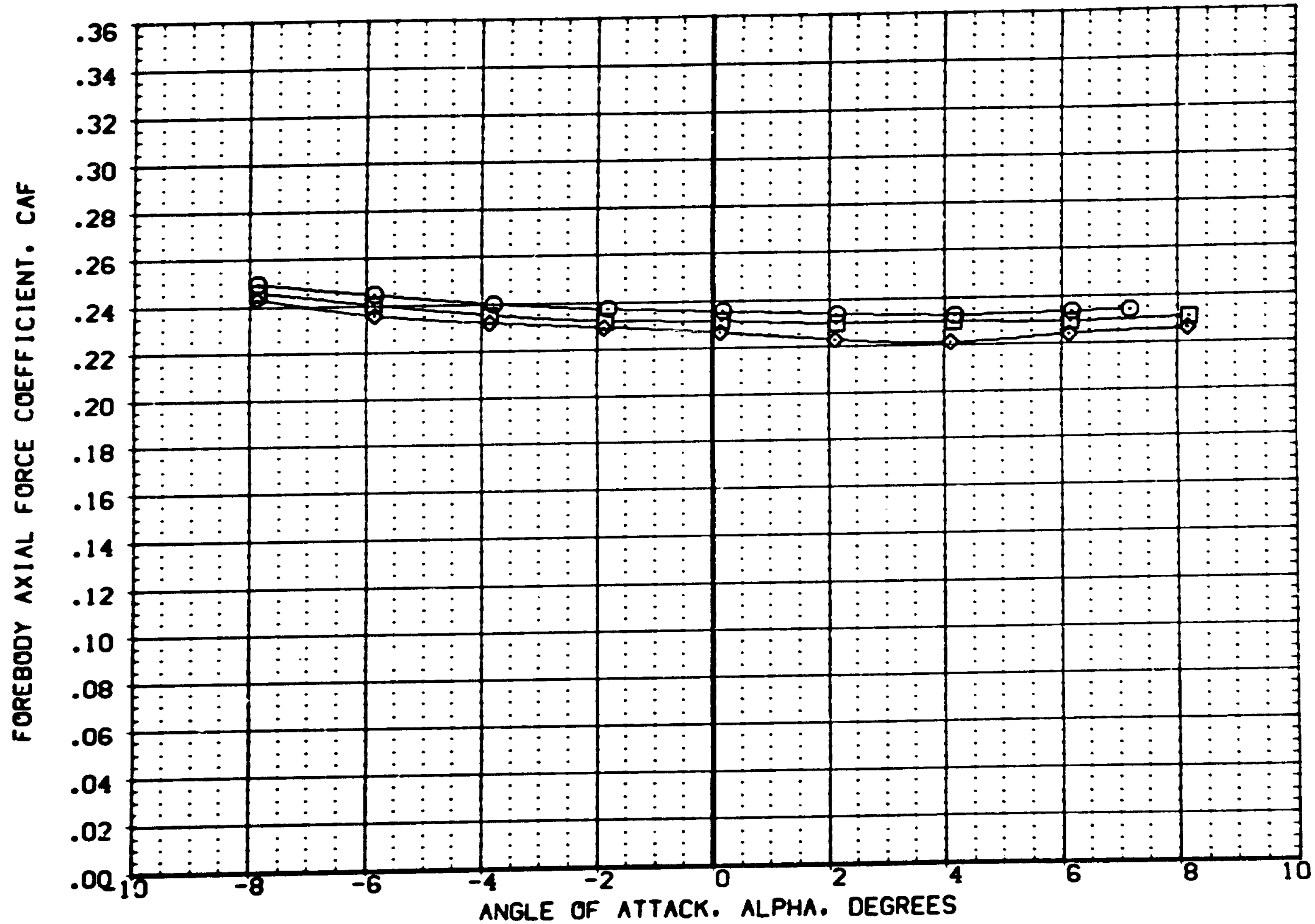
DATA FIGURES

Force Data
(For Wing Pressure Data - See Volume II)

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(CBZ037)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ035)	□	AMES 87-710 IA12C 01 T1 S1	.000	14.720	.429	1.000
(CBZ034)	◇	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000

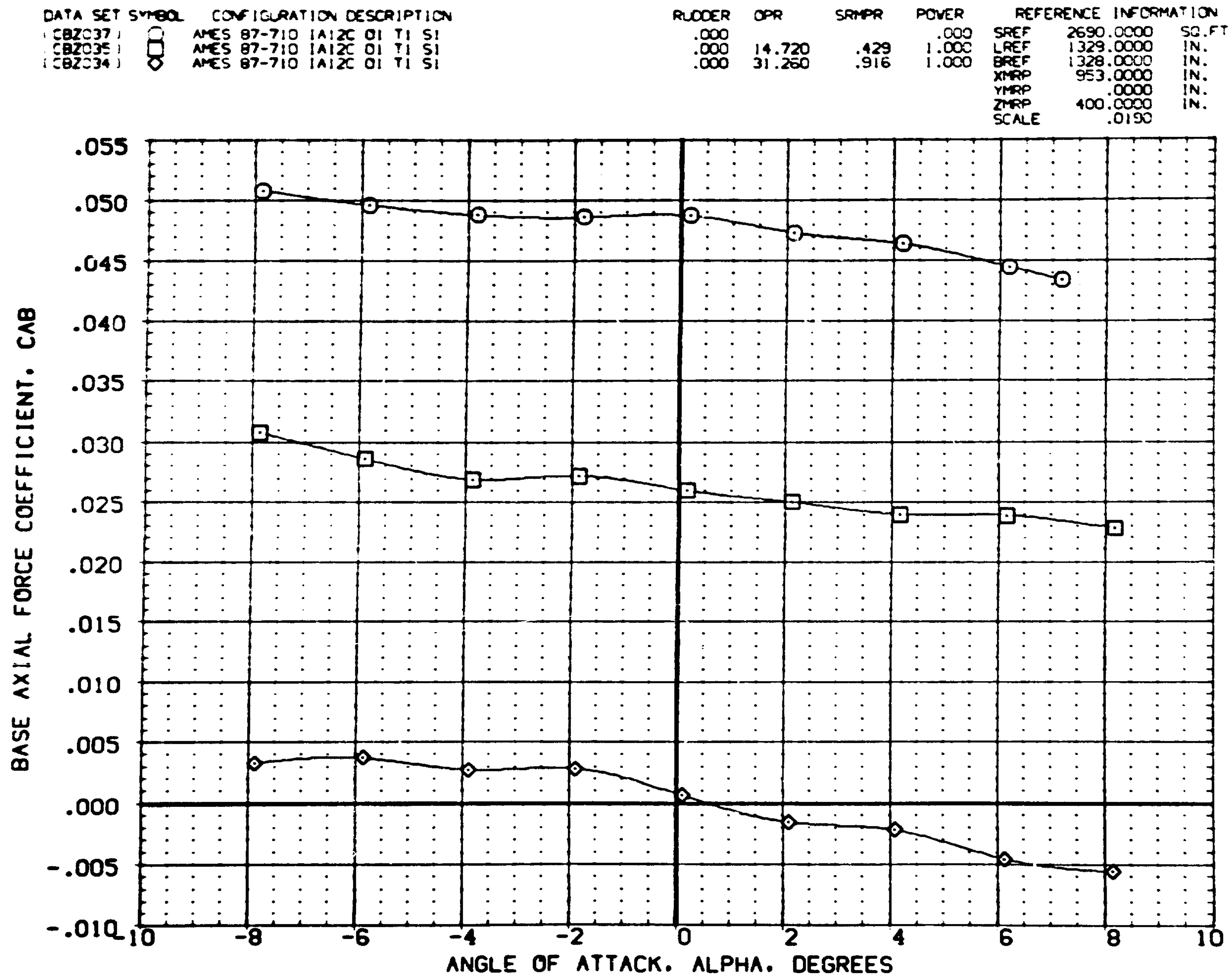
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

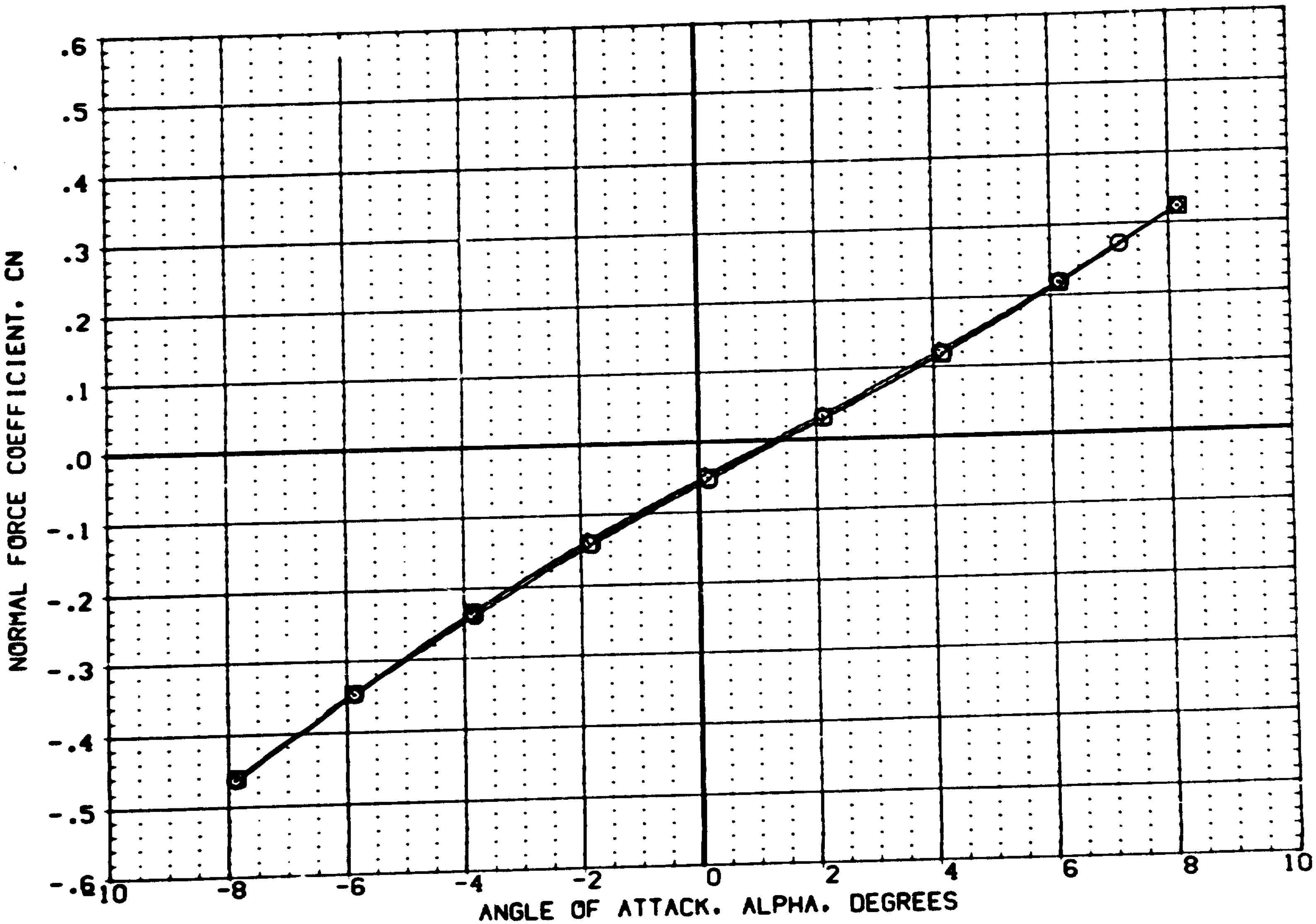
(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CBZ037)	○	AMES 87-710 IA12C O1 T1 S1
(CBZ035)	□	AMES 87-710 IA12C O1 T1 S1
(CBZ034)	◇	AMES 87-710 IA12C O1 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	14.720	.429	1.000
.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(BZC037)	○	AMES 87-71C IA12C 01 T1 S1	.000			.000
(BZC035)	□	AMES 87-71C IA12C 01 T1 S1	.000	14.720	.429	1.000
(BZC034)	◇	AMES 87-71C IA12C 01 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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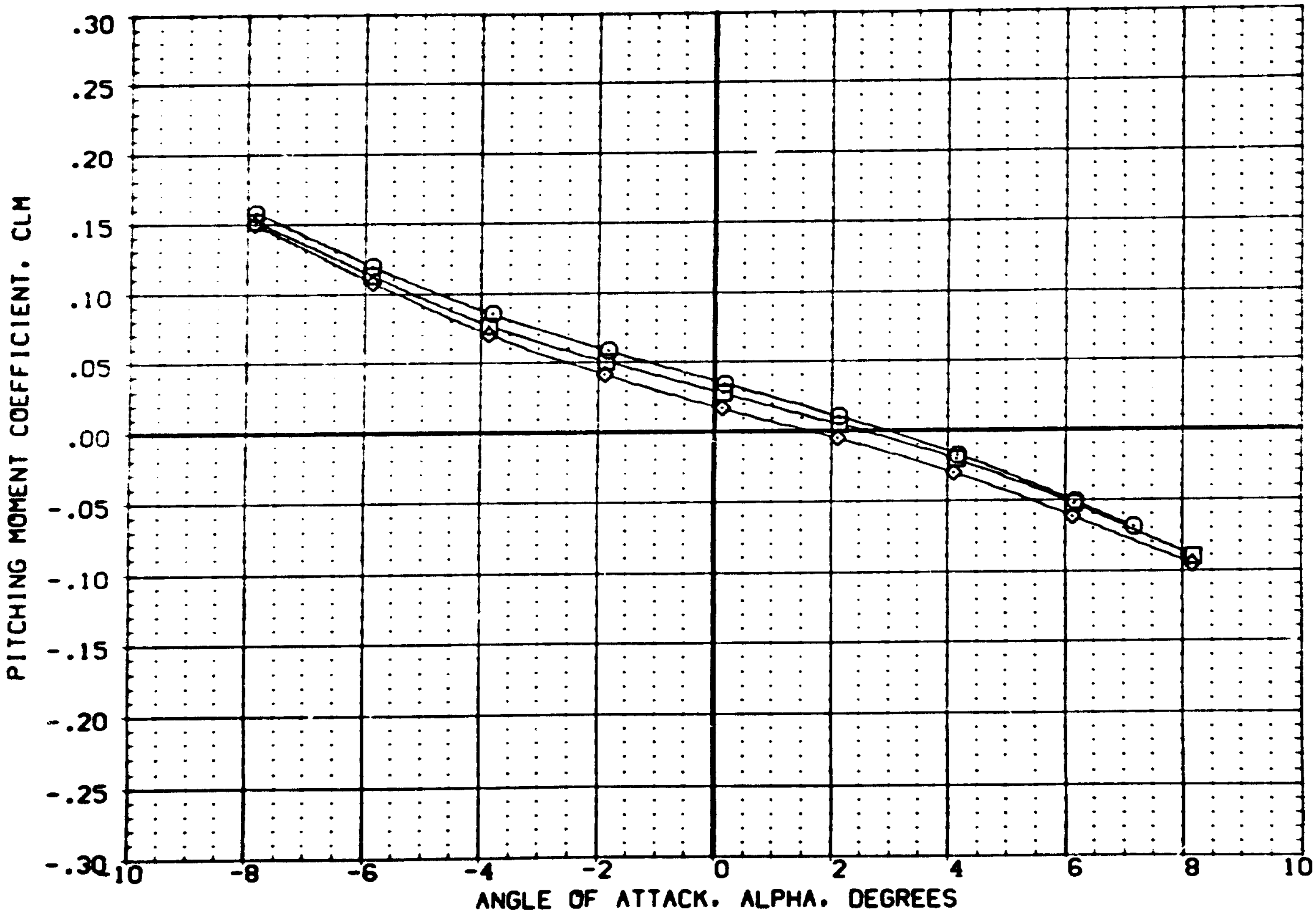

PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ037)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ035)	□	AMES 87-710 IA12C 01 T1 S1	.000	14.720	.429	1.000
(CBZ034)	◇	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
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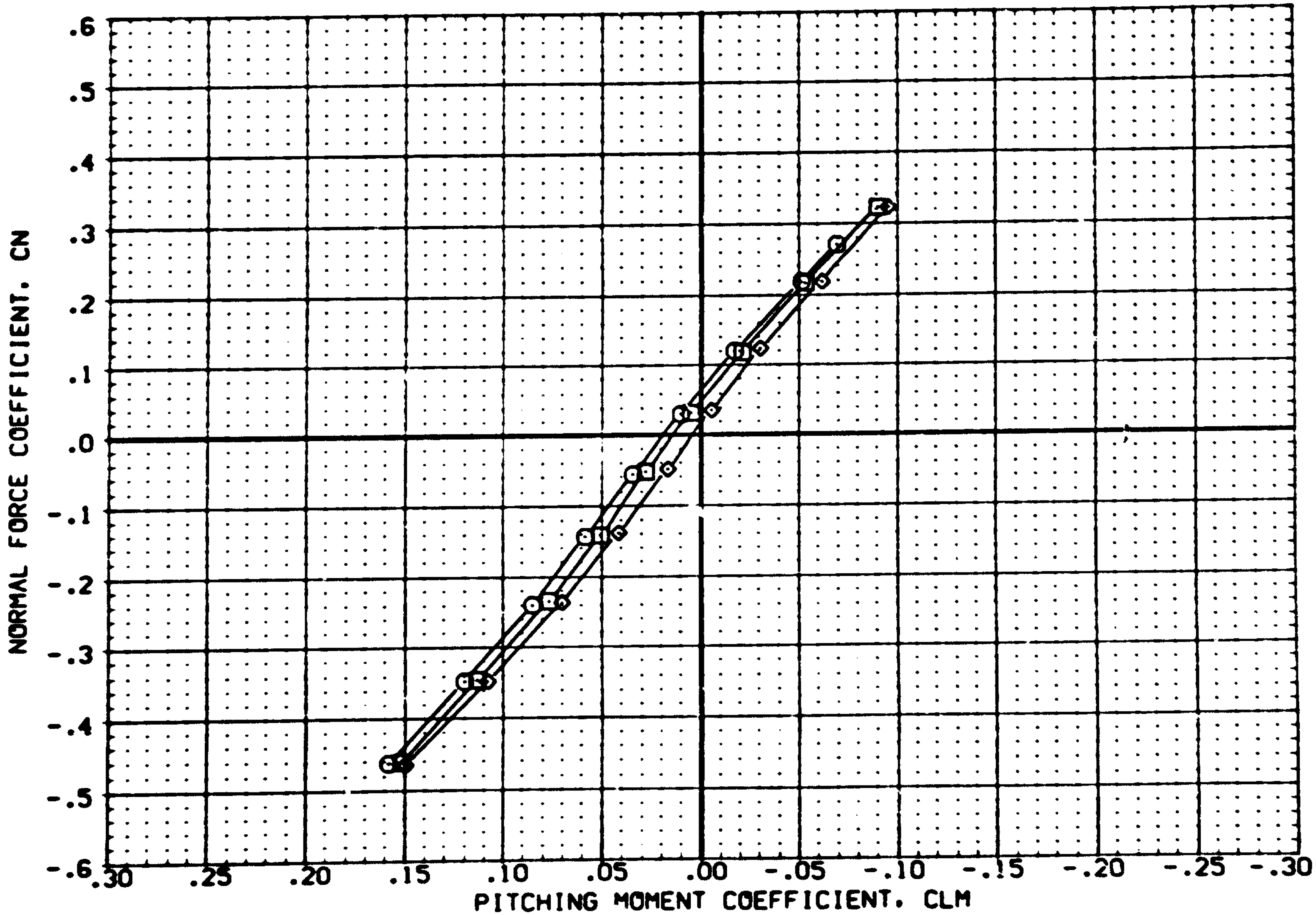

PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(CBZ042)	□	AMES 87-710 IA12C O1 T1 S1	.000	14.400	.412	1.000
(CBZ041)	◇	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
(CBZ045)	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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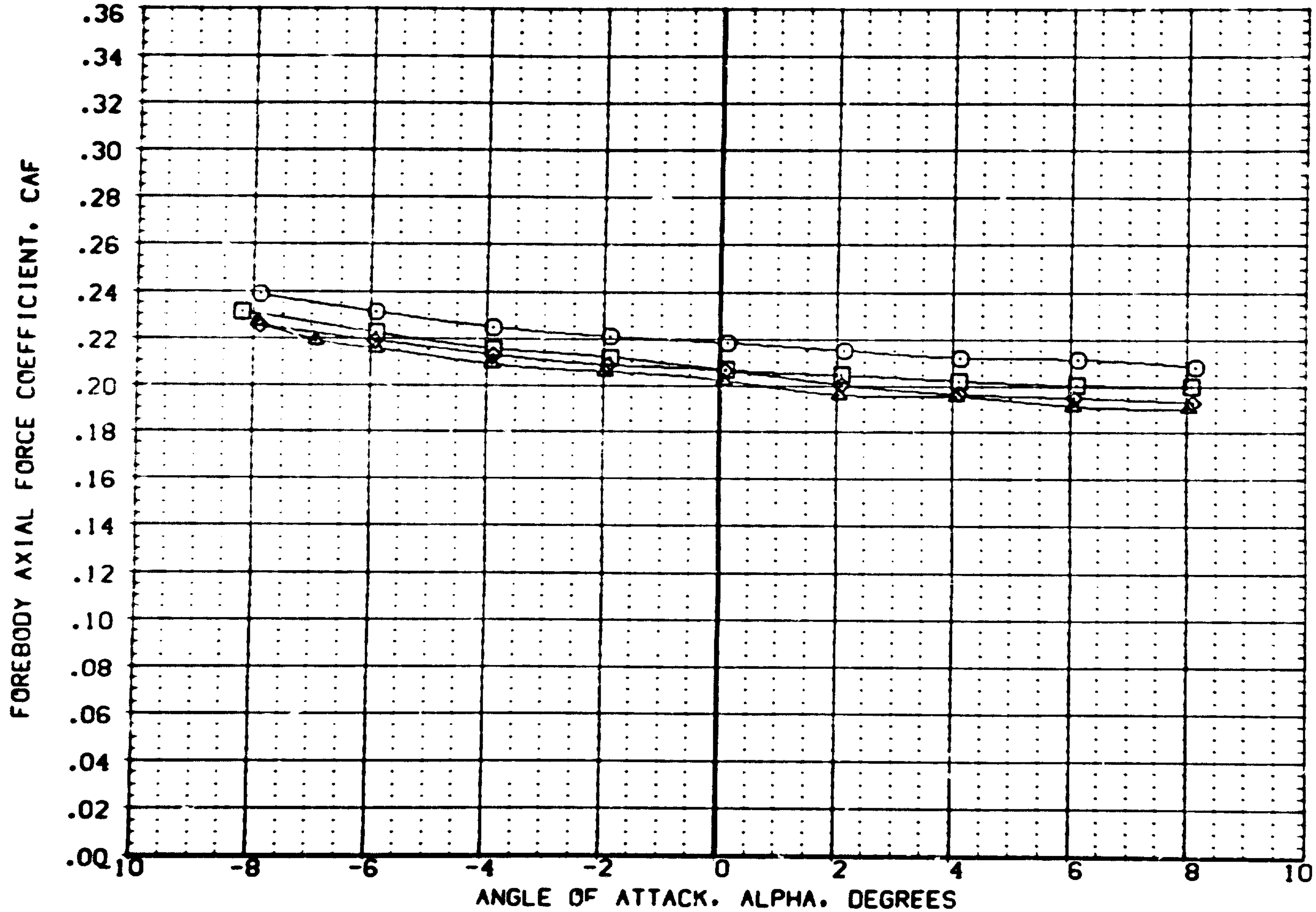


PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

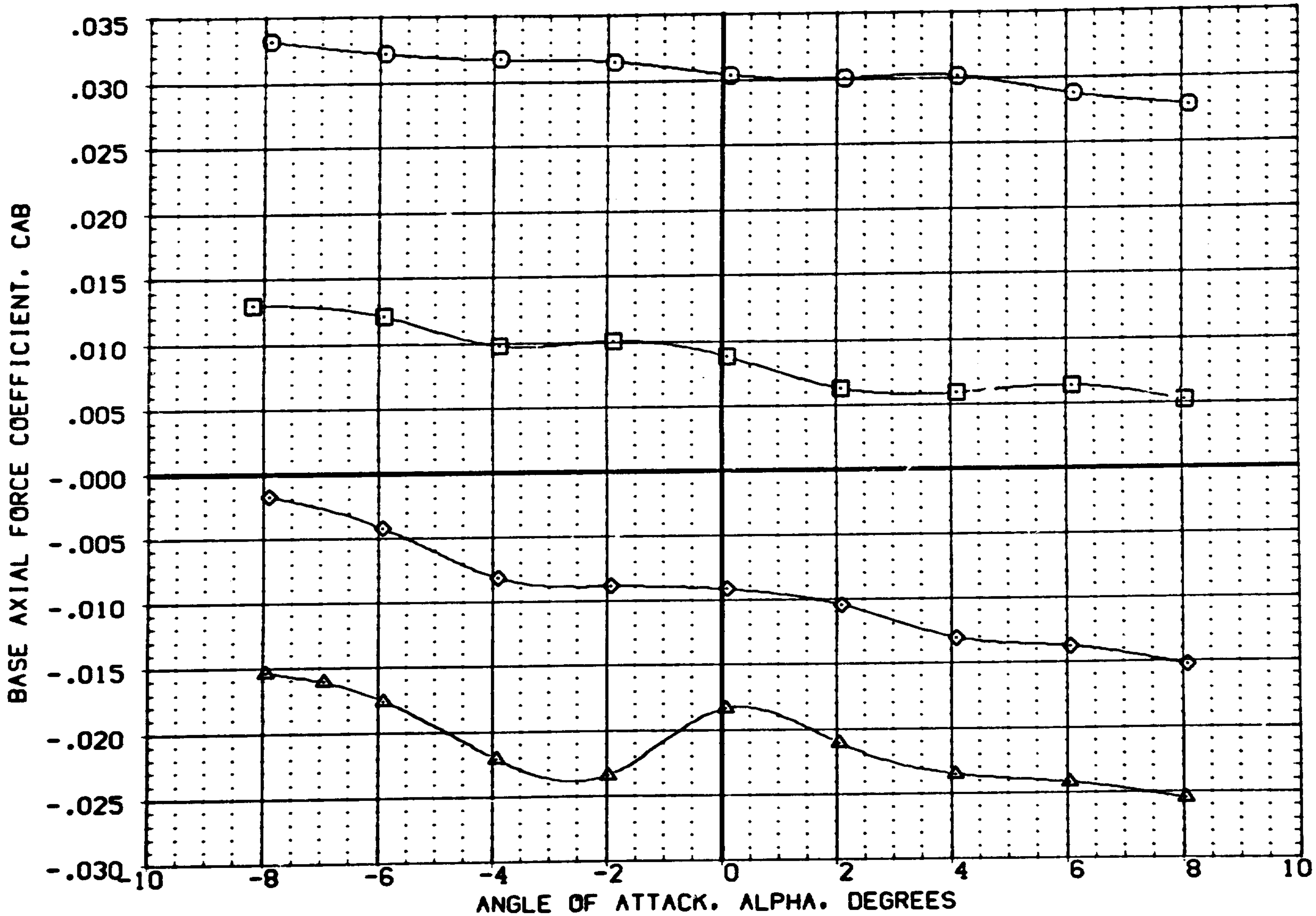
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1
(CBZ042)	□	AMES 87-710 IA12C 01 T1 S1
(CBZ041)	◇	AMES 87-710 IA12C 01 T1 S1
(CBZ045)	△	AMES 87-710 IA12C 01 T1 S1

RUDDER	DPR	SRMPR	POWER
.000			.000
.000	14.400	.412	1.000
.000	26.860	.768	1.000
.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)		AMES 87-710 IA12C O1 T1 S1	.000			.000
(CBZ042)	□	AMES 87-710 IA12C O1 T1 S1	.000	14.400	.412	1.000
(CBZ041)	◇	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
(CBZ045)	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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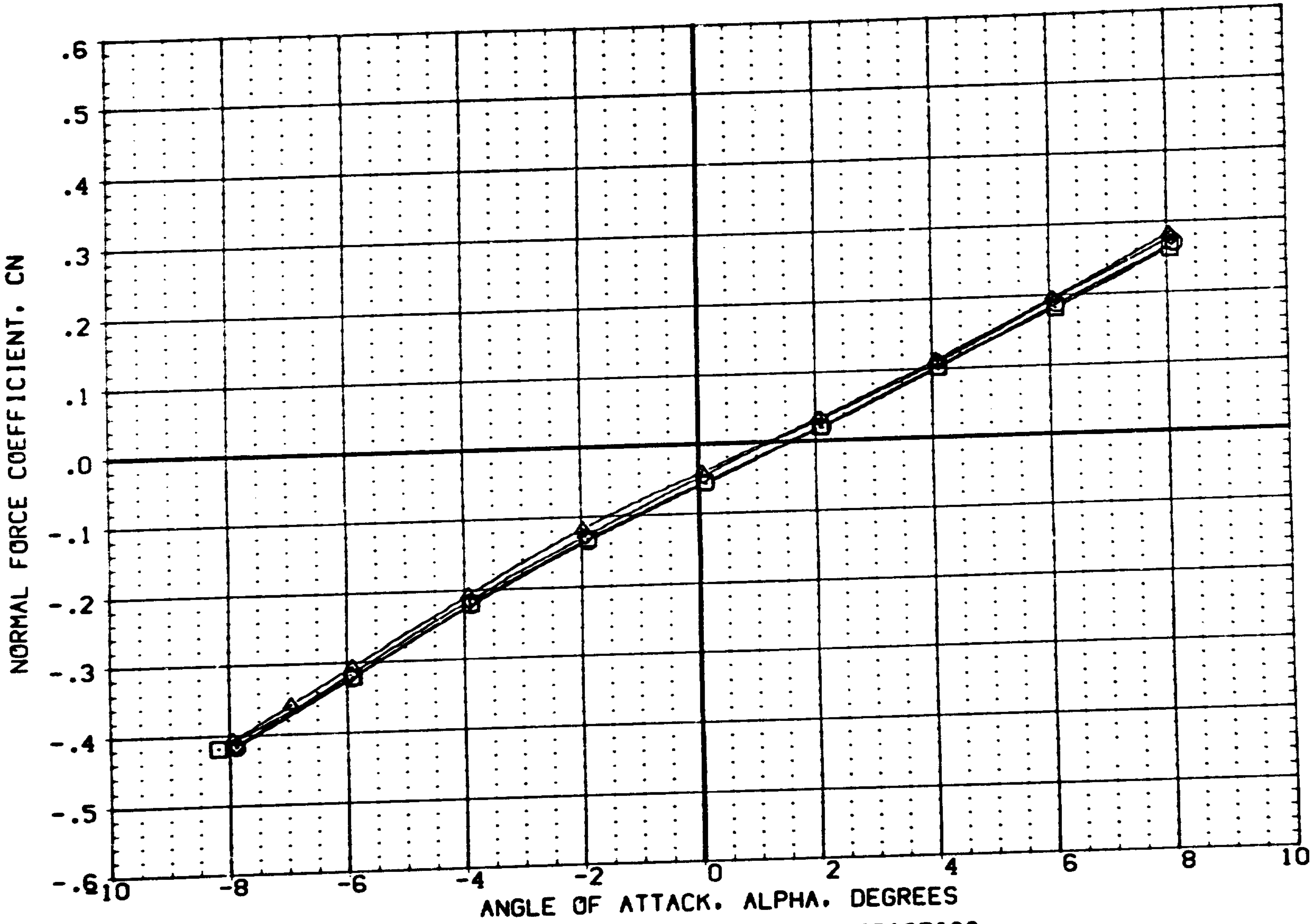

PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

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(CBZ038)	○	AMES 97-710 IA12C 01 T1 S1	.000			.000
(CBZ042)	□	AMES 87-710 IA12C 01 T1 S1	.000	14.400	.412	1.000
(CBZ041)	◇	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(CBZ043)	△	AMES 87-710 IA12C 01 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
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XMRP	953.0000	IN.
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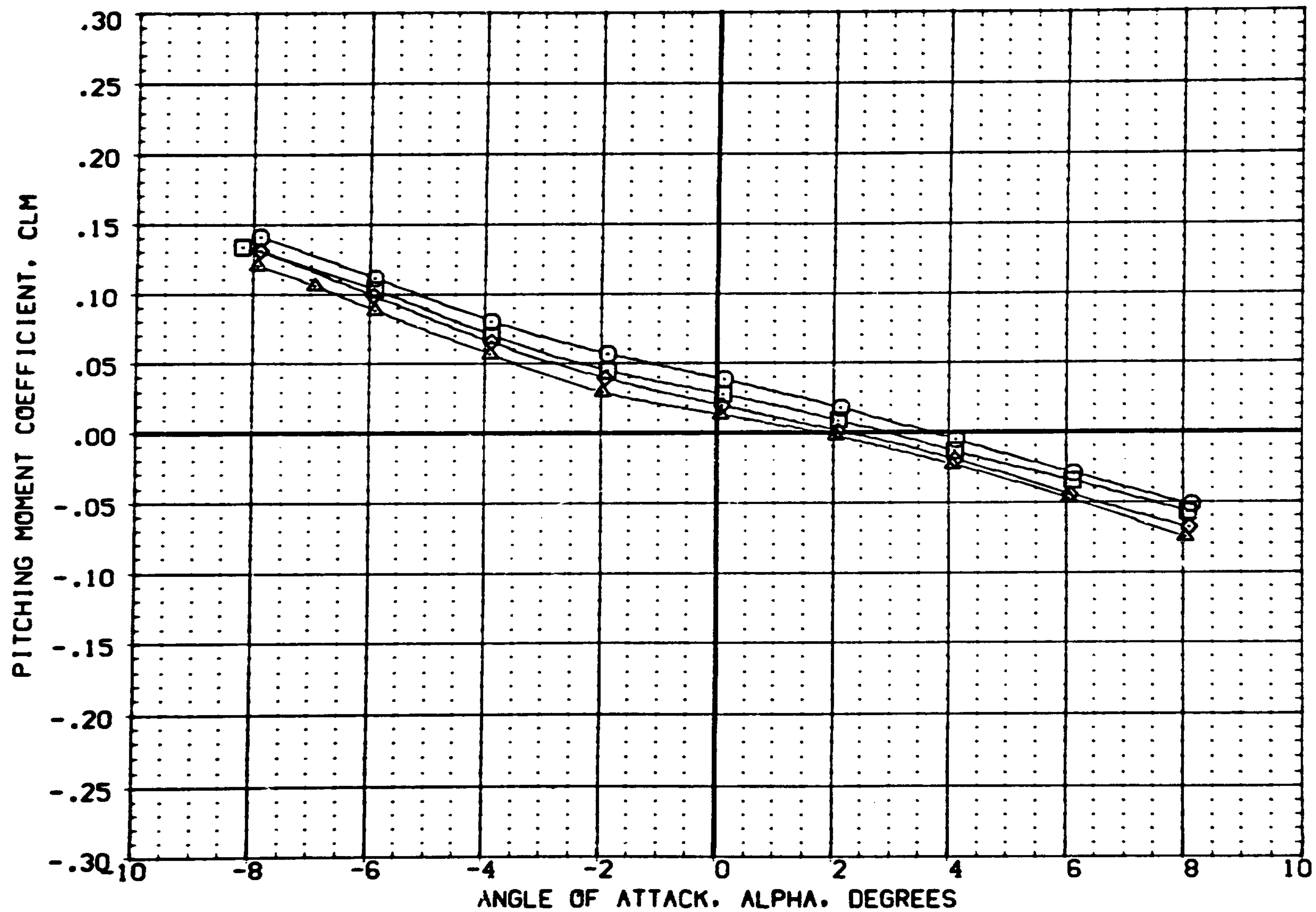

PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(CBZ042)	□	AMES 87-710 IA12C O1 T1 S1	.000	14.400	.412	1.000
(CBZ041)	◇	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
(CBZ045)	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
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XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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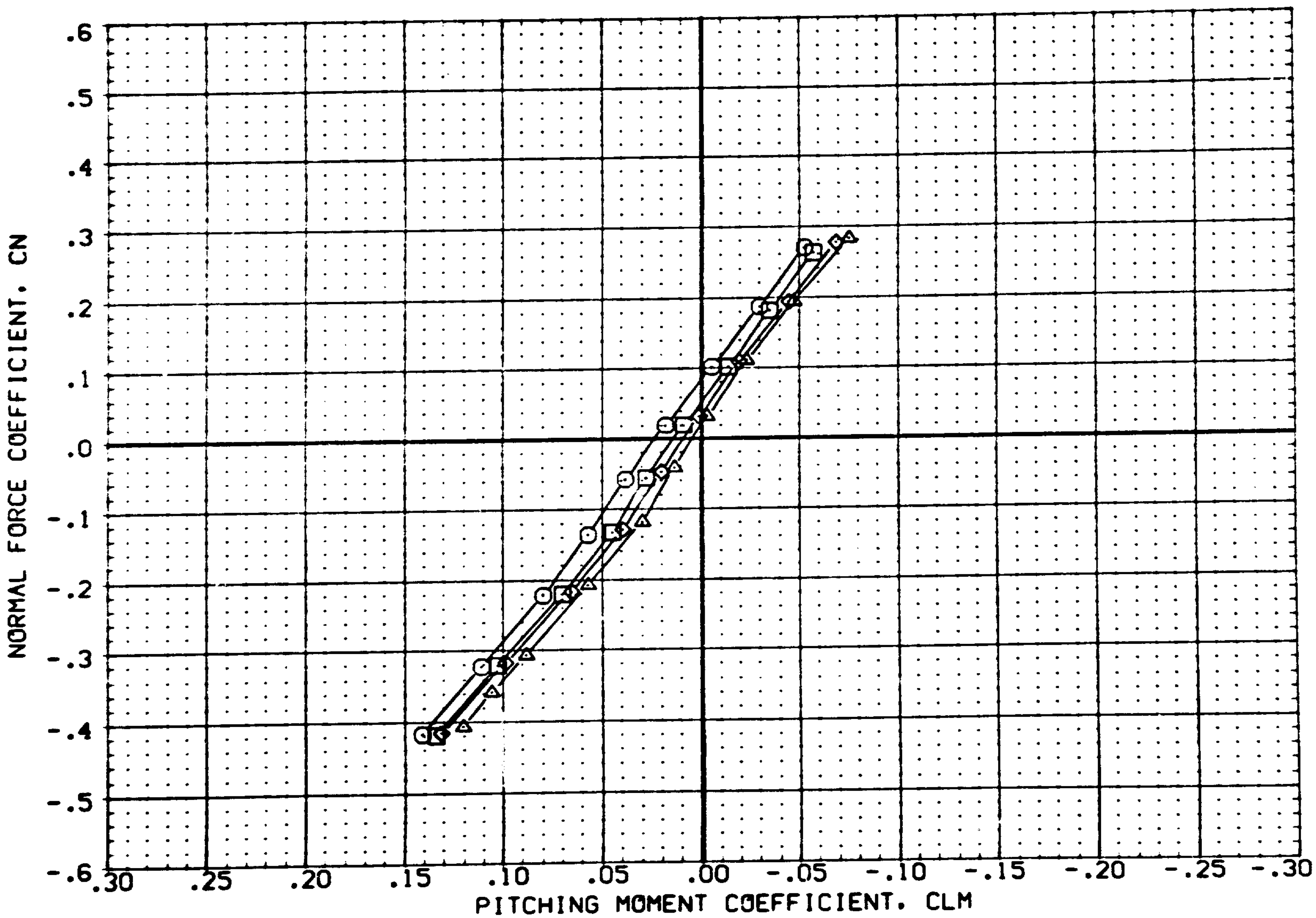
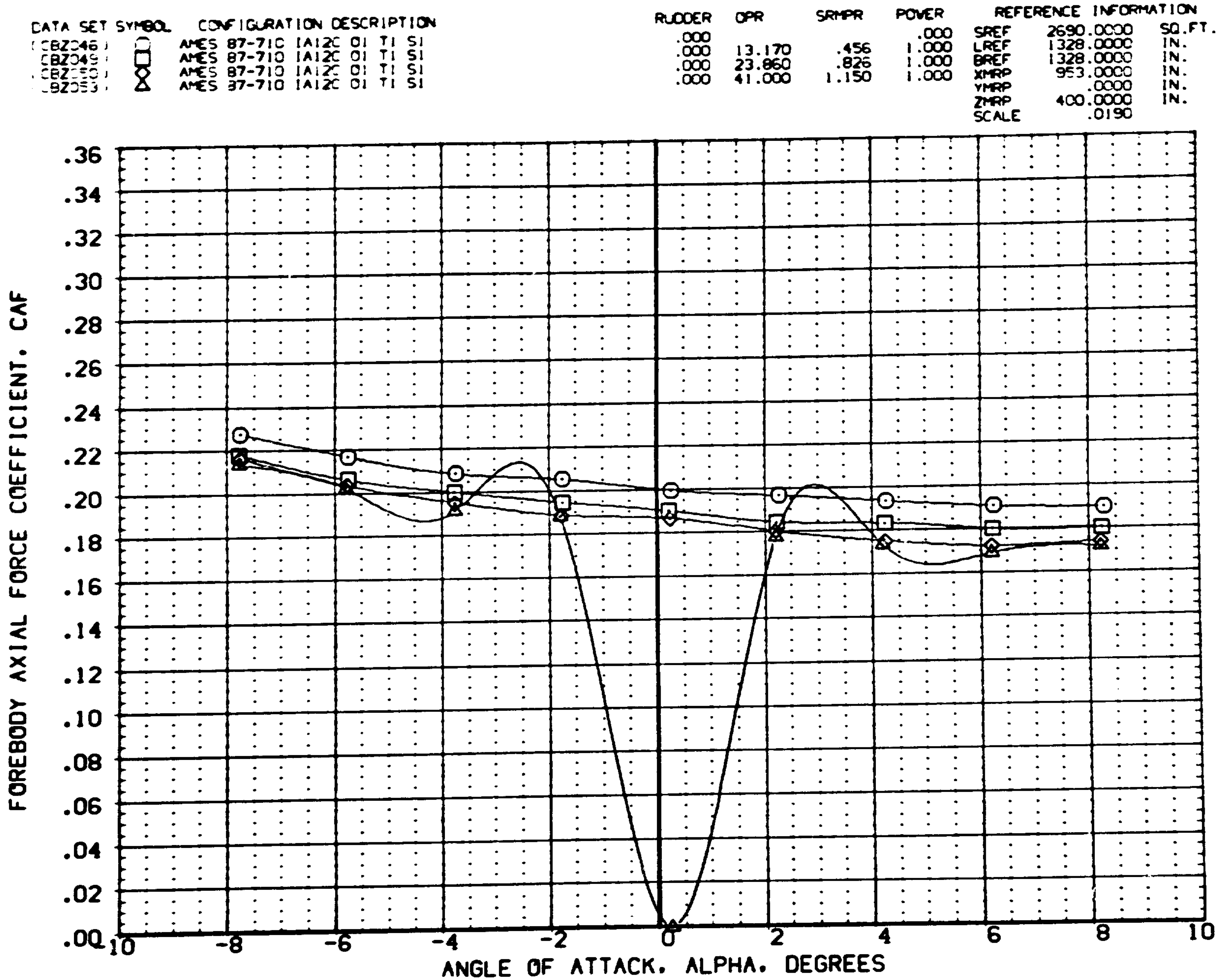


PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ049)	□	AMES 87-710 IA12C 01 T1 S1	.000	13.170	.456	1.000
(CBZ050)	◇	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(CBZ053)	△	AMES 87-710 IA12C 01 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
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YMRP	.0000	IN.
ZMRP	400.0000	IN.
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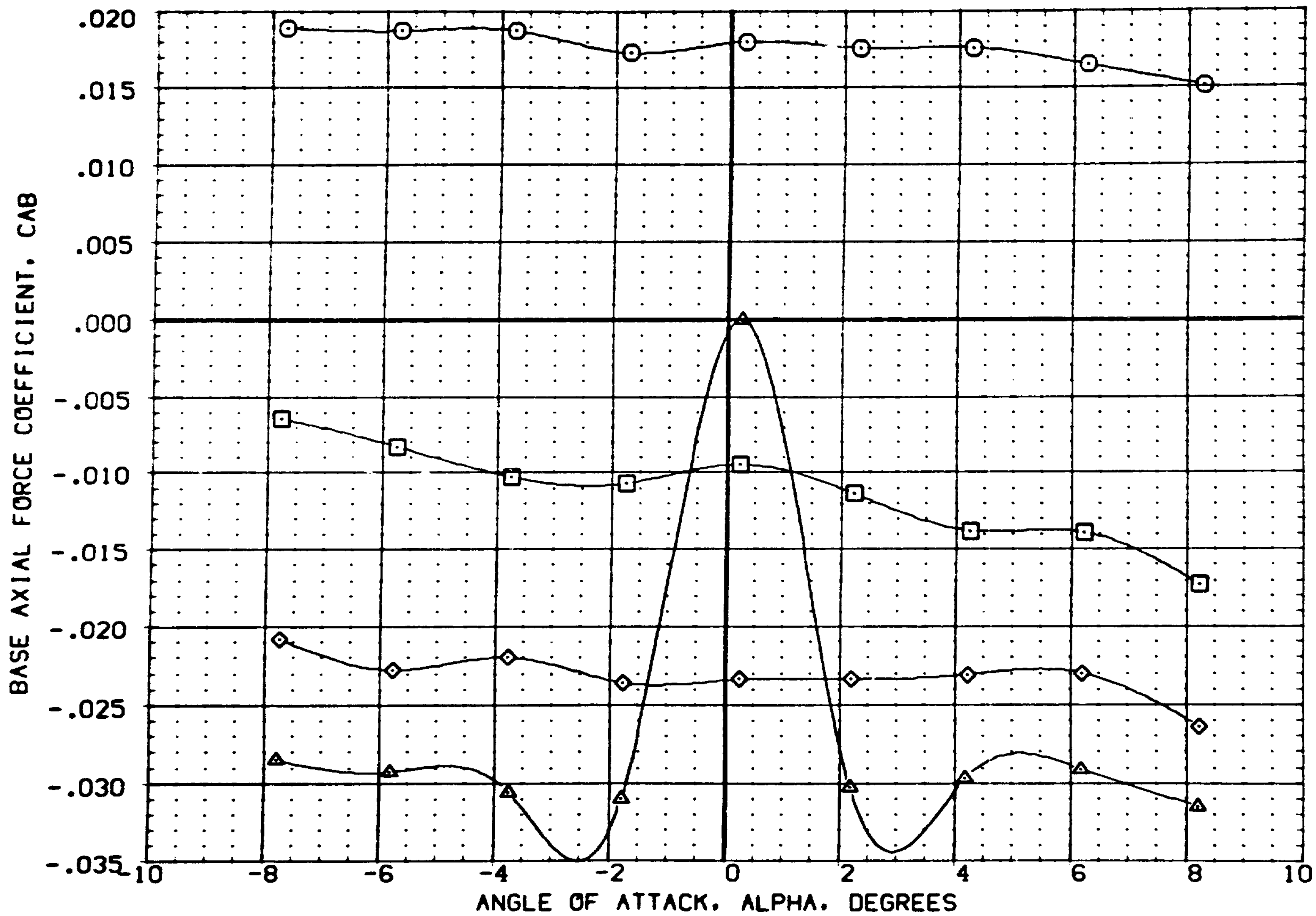

PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ046)		AMES 87-710 IA12C O1 T1 S1
(BZ049)		AMES 87-710 IA12C O1 T1 S1
(BZ050)		AMES 87-710 IA12C O1 T1 S1
(BZ053)		AMES 87-710 IA12C O1 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	13.170	.456	1.000
.000	23.860	.826	1.000
.000	41.000	1.150	1.000

REFERENCE	INFORMATION	
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
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YMRP	.0000	IN.
ZMRP	400.0000	IN.
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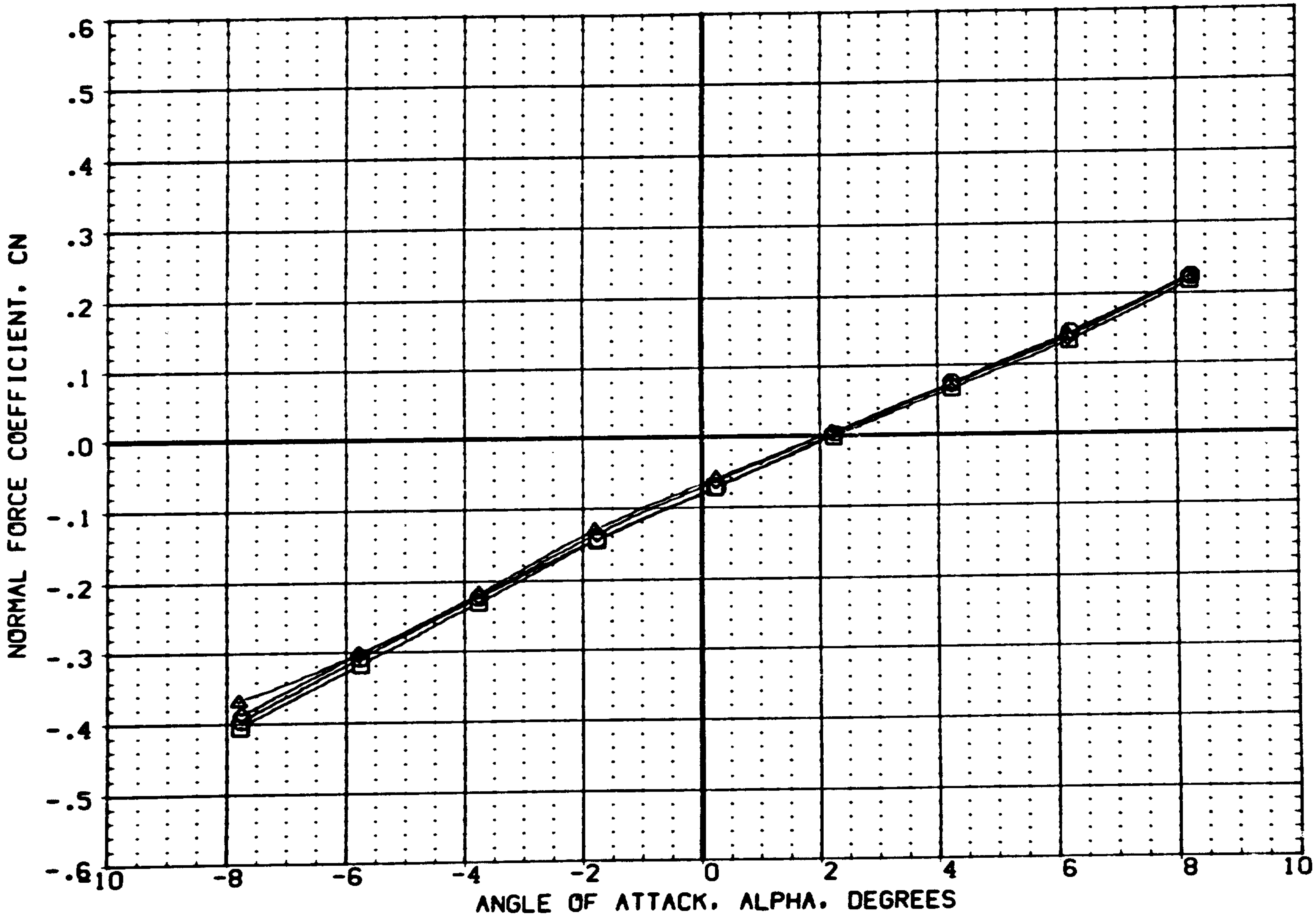
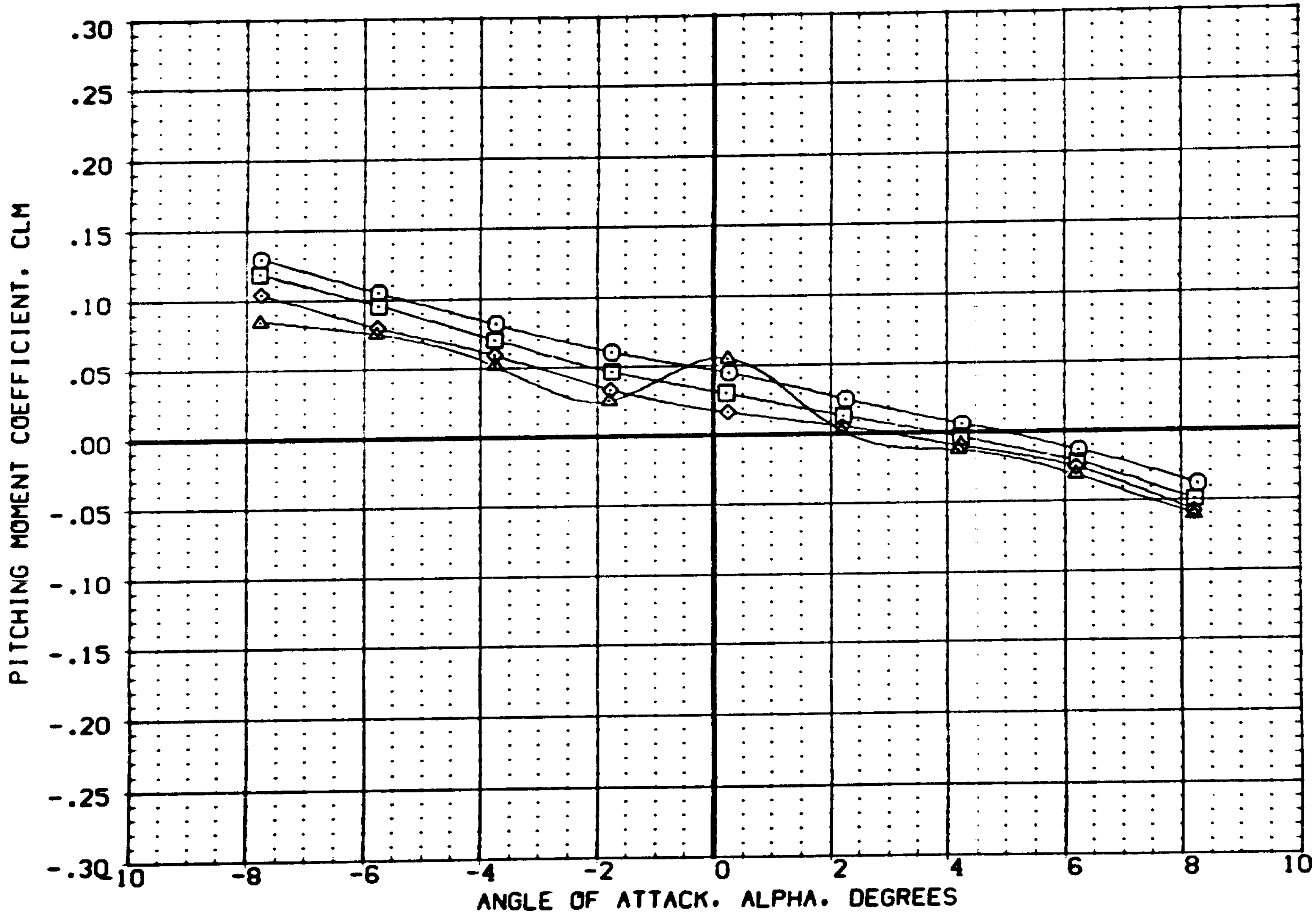


PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ049)	□	AMES 87-710 IA12C 01 T1 S1	.000	13.170	.456	1.000
(BZ050)	◇	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BZ053)	△	AMES 87-710 IA12C 01 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



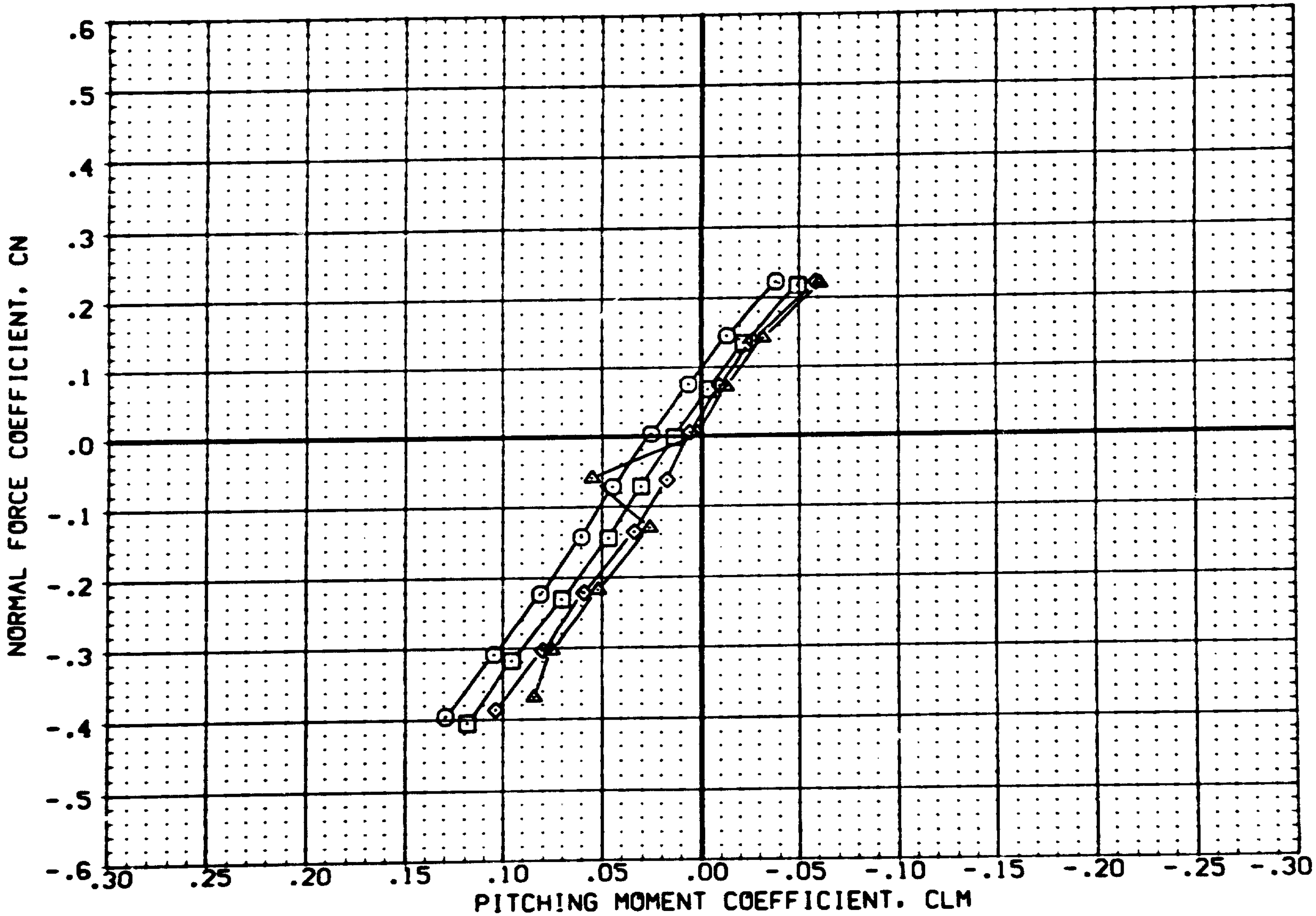
PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CBZ046)	○	AMES 87-710 IA12C 01 T1 S1
(CBZ049)	□	AMES 87-710 IA12C 01 T1 S1
(CBZ050)	◇	AMES 87-710 IA12C 01 T1 S1
(CBZ053)	△	AMES 87-710 IA12C 01 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	13.170	.456	1.000
.000	23.860	.826	1.000
.000	41.000	1.150	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

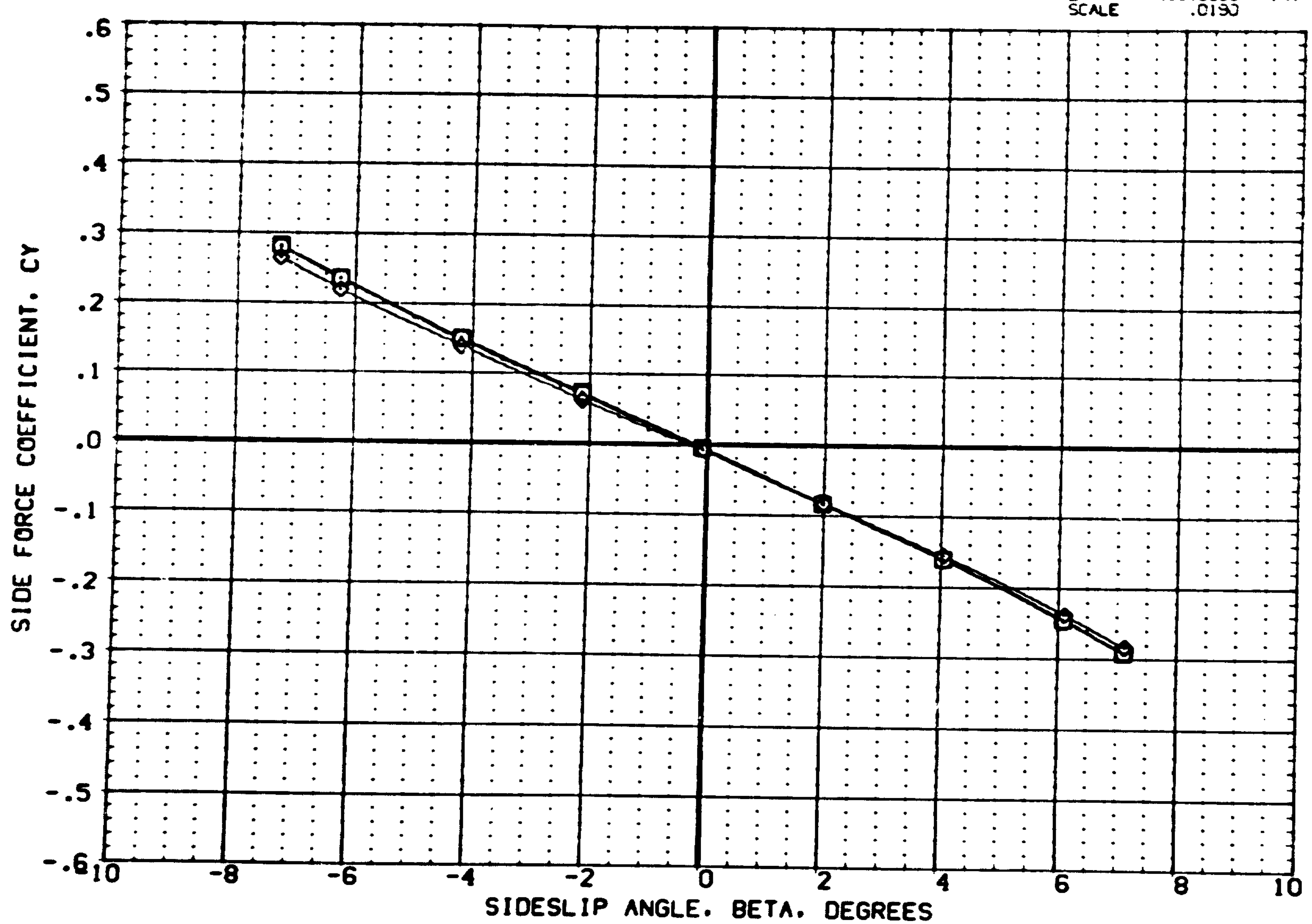


PLUME SIZE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(BBZ032)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ036)	□	AMES 87-710 IA12C 01 T1 S1	.000	14.720	.429	1.000
(BBZ033)	◇	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



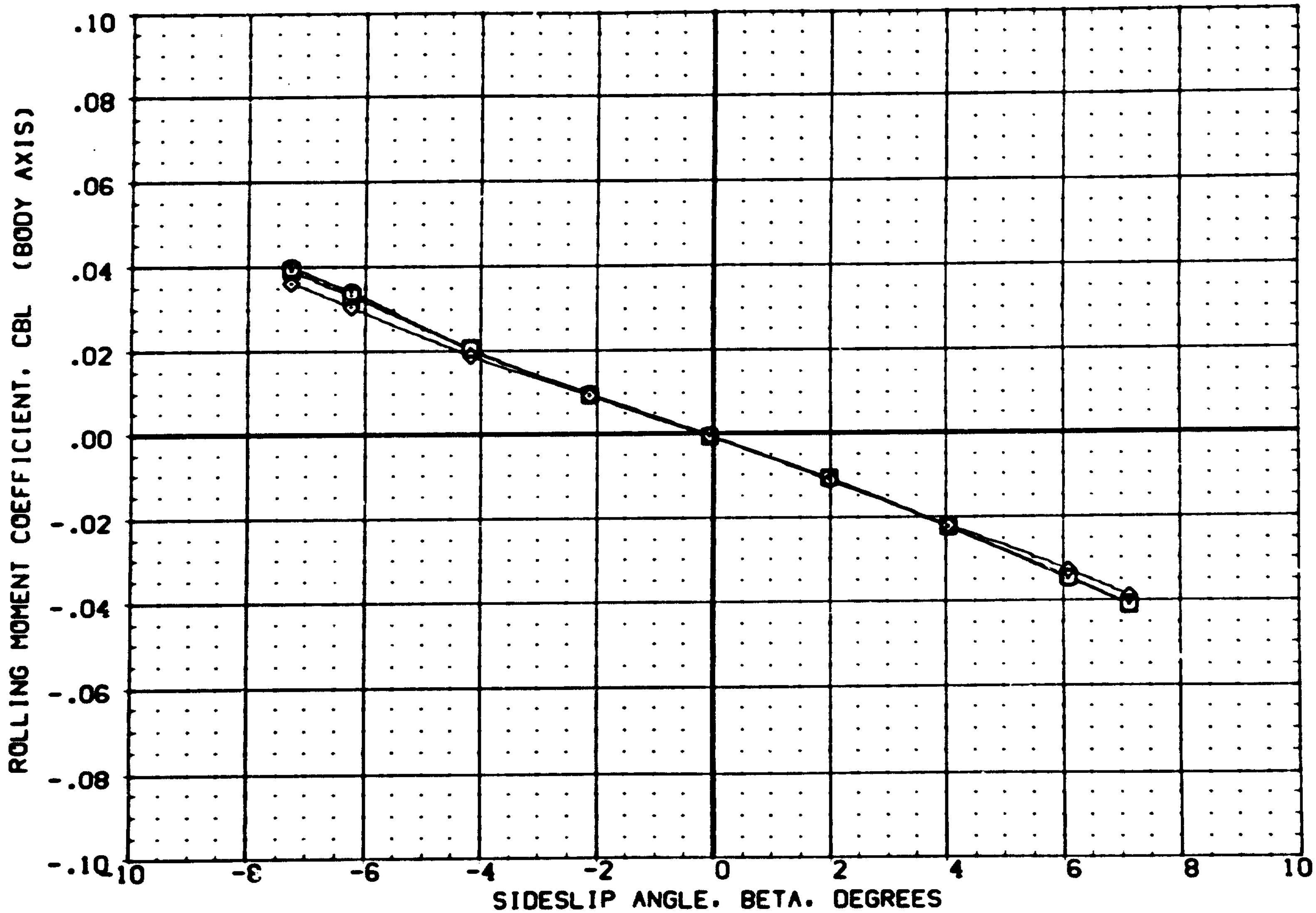
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ032	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
6BZ036	□	AMES 87-710 IA12C 01 T1 S1	.000	14.720	.429	1.000
6BZ033	◇	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



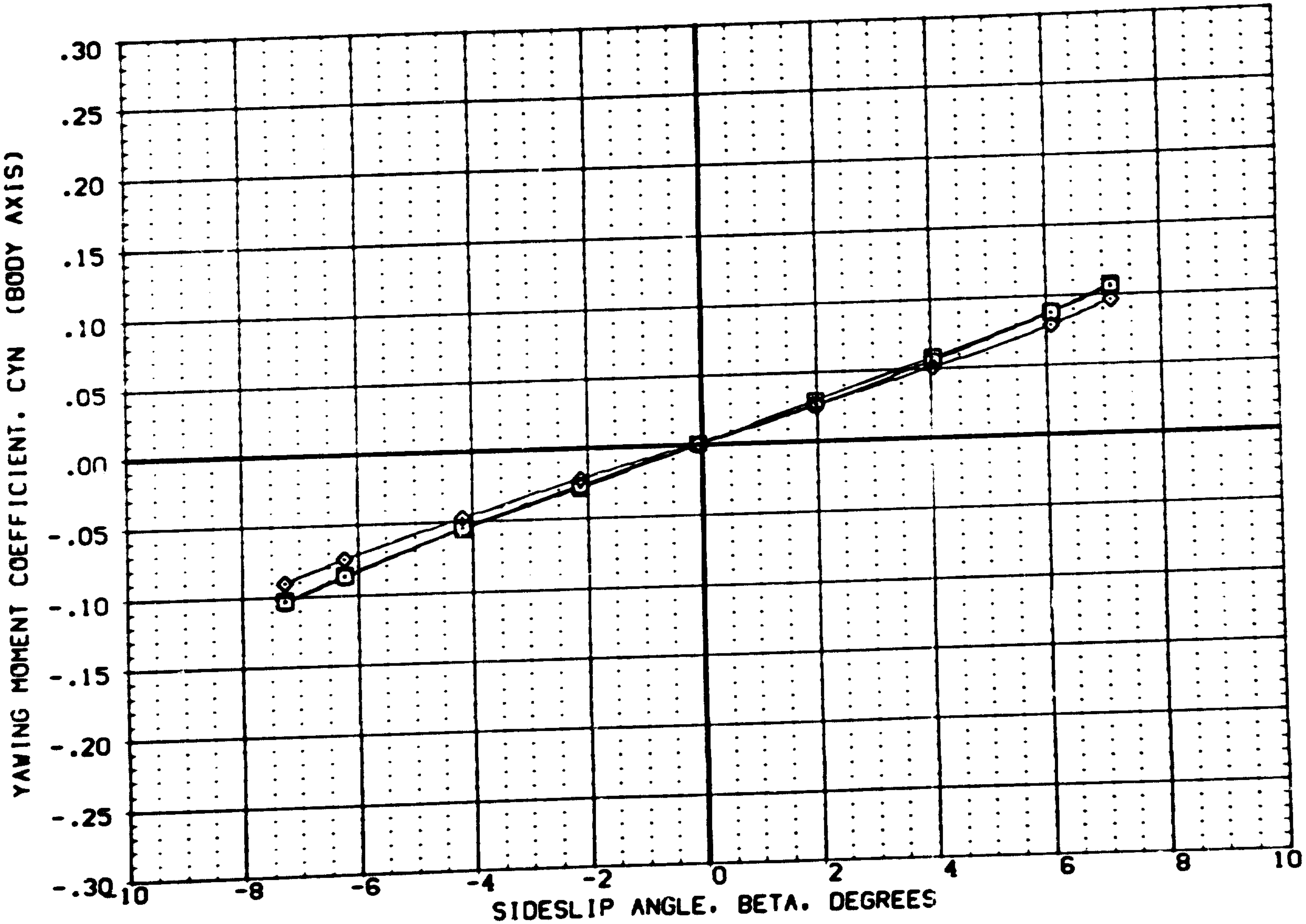
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
6BZ032	—	AMES 87-710 IA12C 01 T1 S1	.000			.000
6BZ036	□	AMES 87-710 IA12C 01 T1 S1	.000	14.720	.429	1.000
6BZ033	◇	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



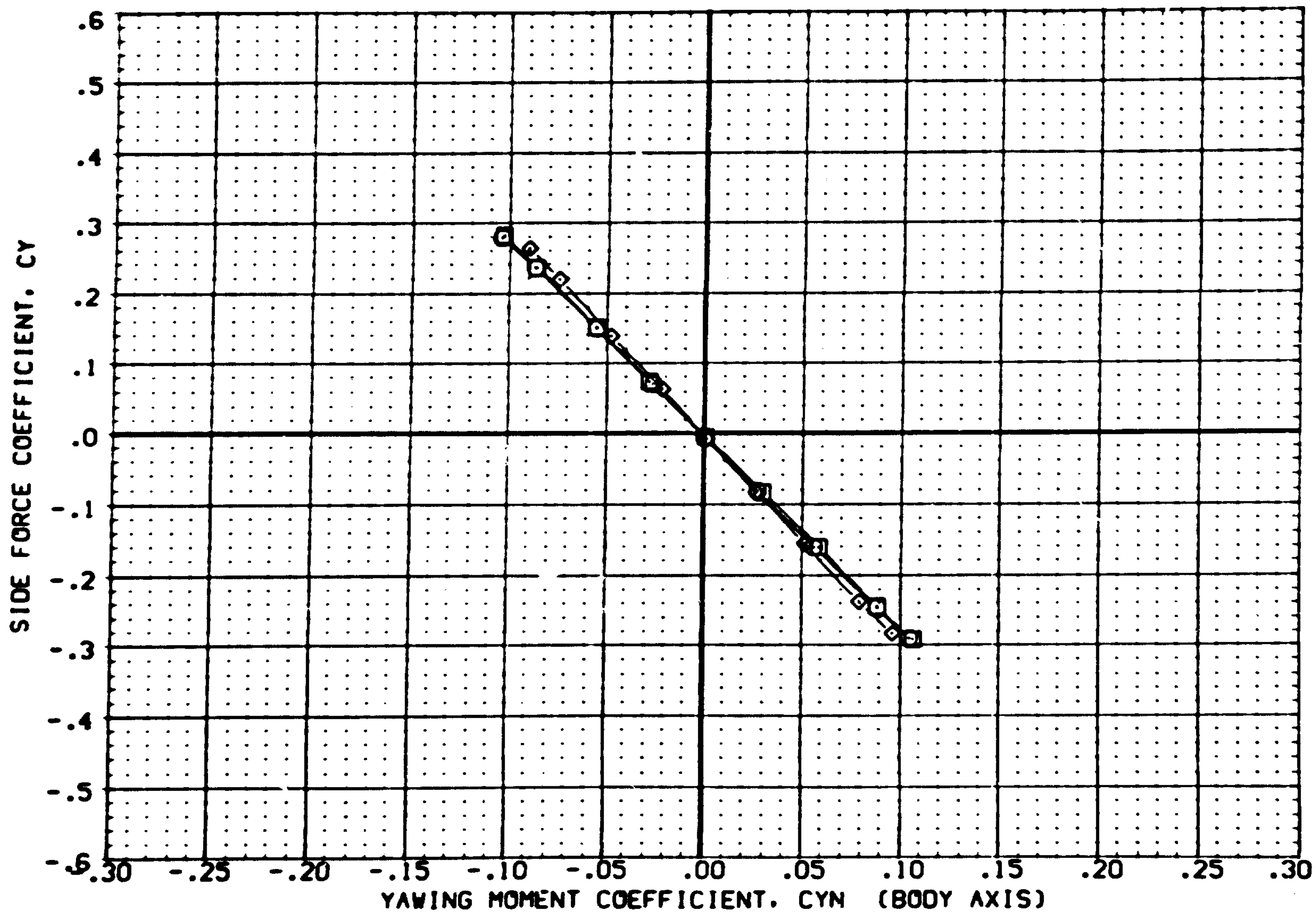
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ032	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
BBZ030	□	AMES 87-710 IA12C O1 T1 S1	.000	14.720	.429	1.000
BBZ033	◇	AMES 87-710 IA12C O1 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



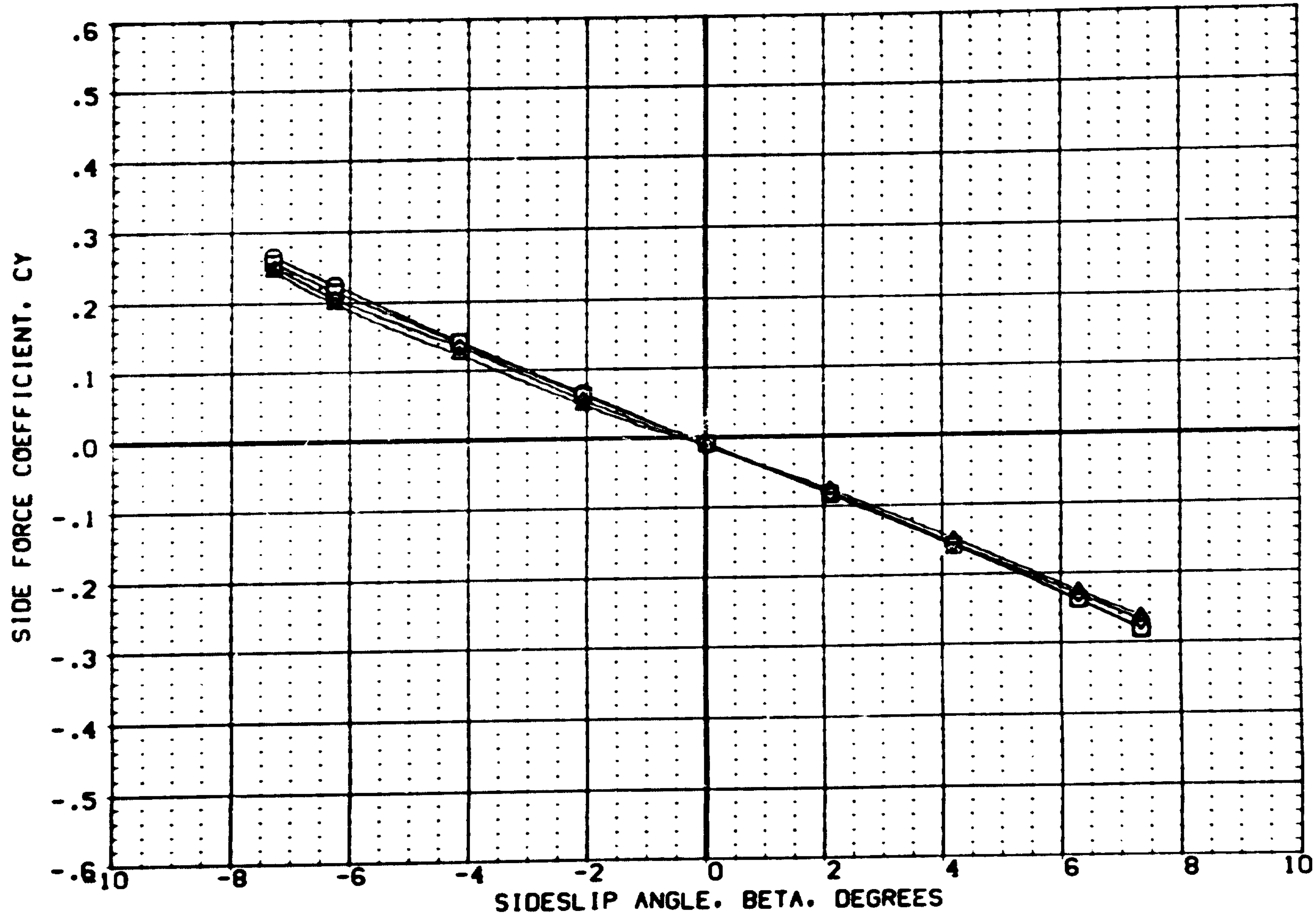
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BBZ039	○	AMES 87-710 IA12C 01 T1 S1
BBZ043	□	AMES 87-710 IA12C 01 T1 S1
BBZ042	◇	AMES 87-710 IA12C 01 T1 S1
BBZ044	△	AMES 87-710 IA12C 01 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	14.400	.412	1.000
.000	26.860	.769	1.000
.000	41.000	1.150	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C C1 T1 S1	.000			.000
(BBZ043)	□	AMES 87-710 IA12C O1 T1 S1	.000	14.400	.412	1.000
(BBZ040)	◇	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
(BBZ044)	△	AMES 87-710 IA12C C1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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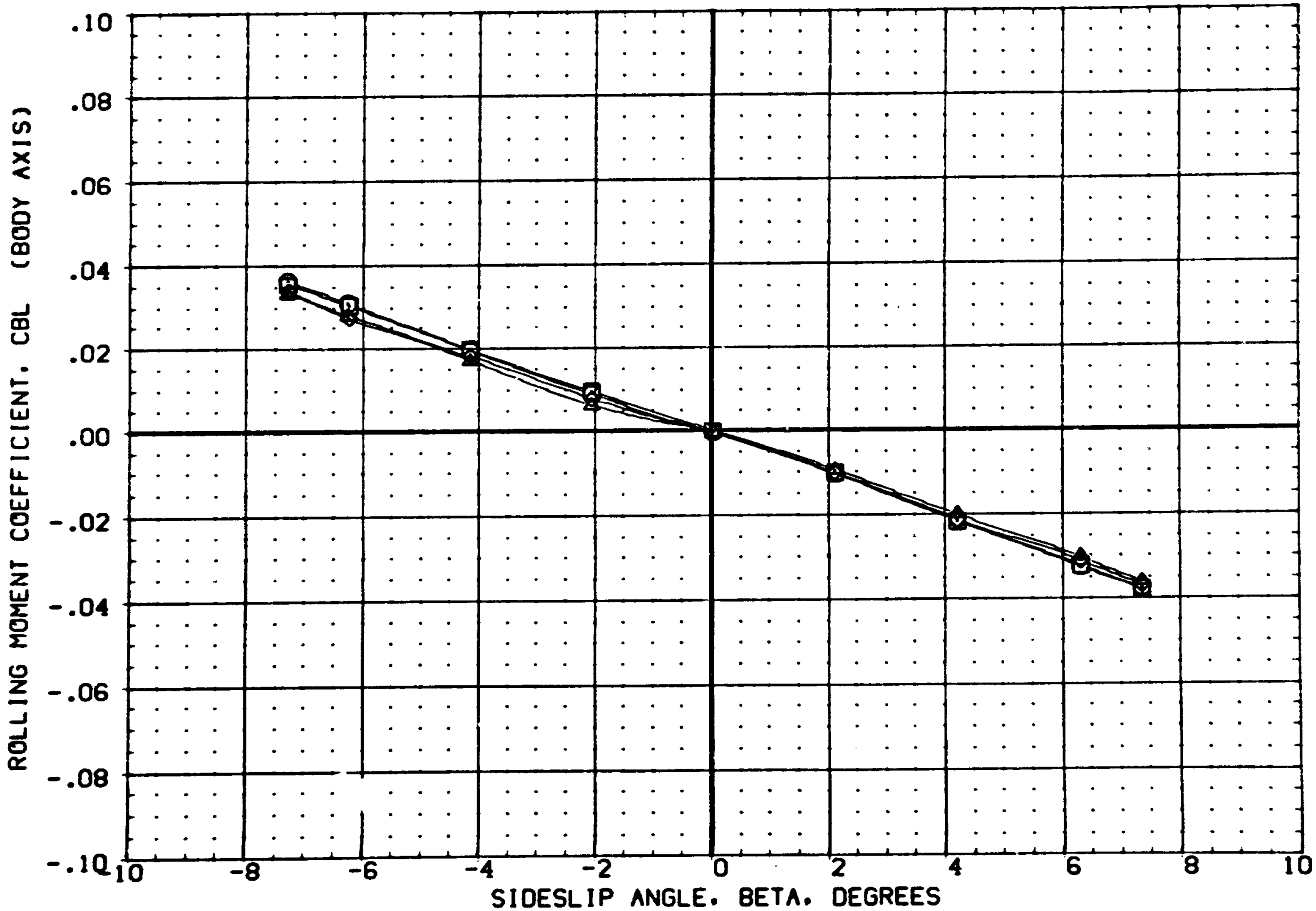

PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ043)	□	AMES 87-710 IA12C 01 T1 S1	.000	14.400	.412	1.000
(BBZ043)	◇	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(BBZ044)	△	AMES 87-710 IA12C 01 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
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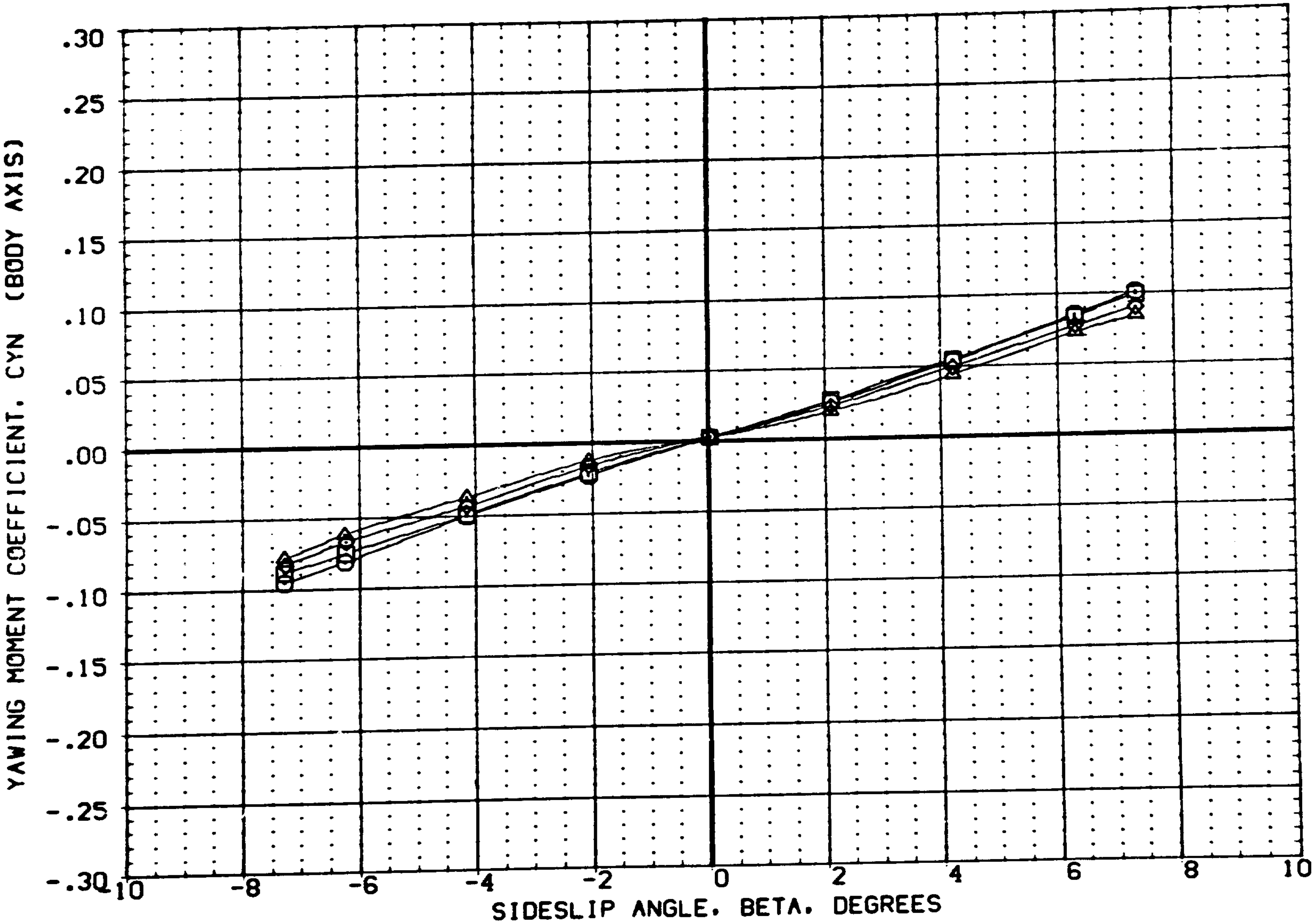
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



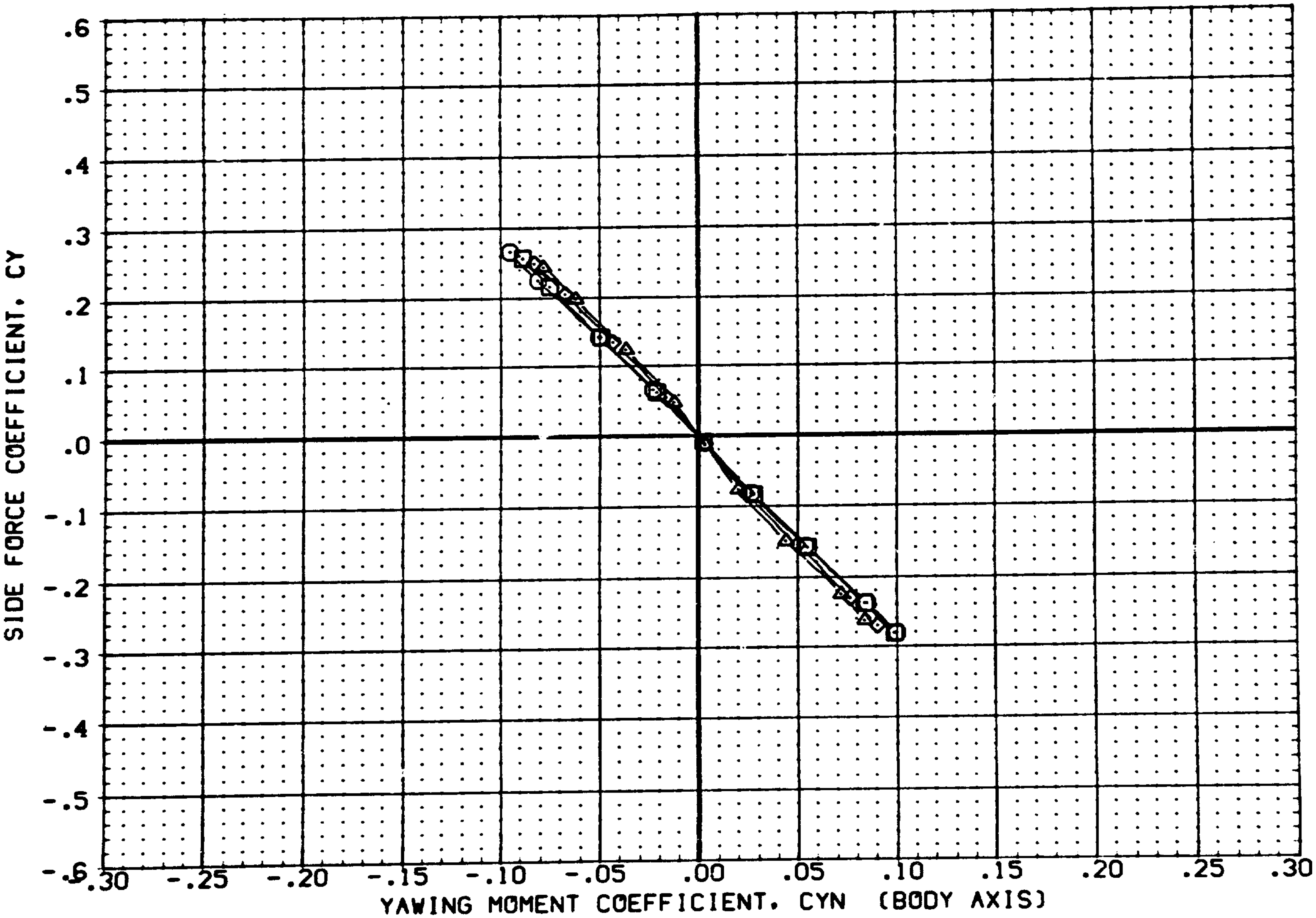
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ039	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
BBZ043	□	AMES 87-710 IA12C O1 T1 S1	.000	14.400	.412	1.000
BBZ040	◇	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
BBZ044	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



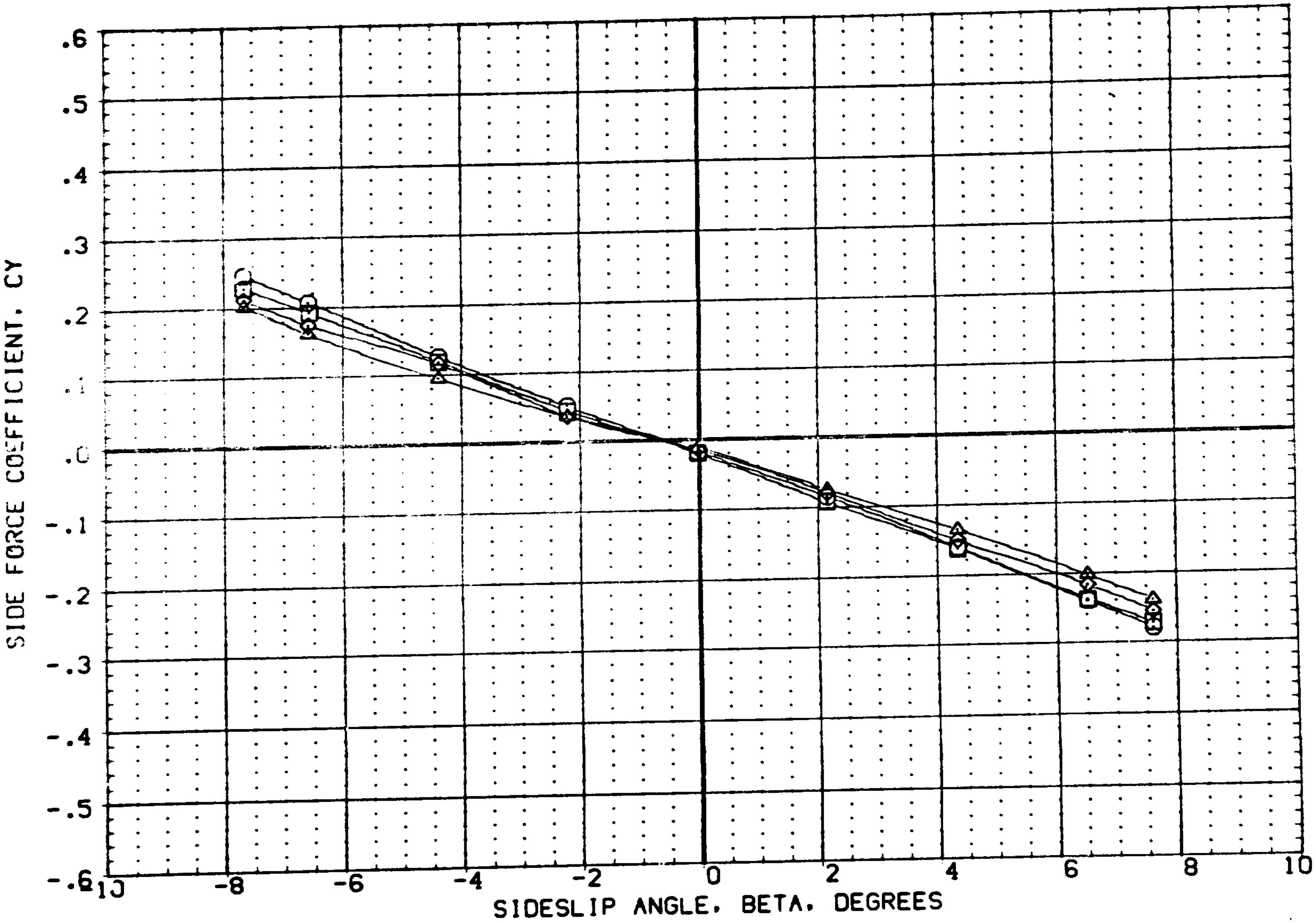
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ047	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
BBZ048	□	AMES 87-710 IA12C 01 T1 S1	.000	13.170	.456	1.000
BBZ051	◇	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
BBZ052	△	AMES 87-710 IA12C 01 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

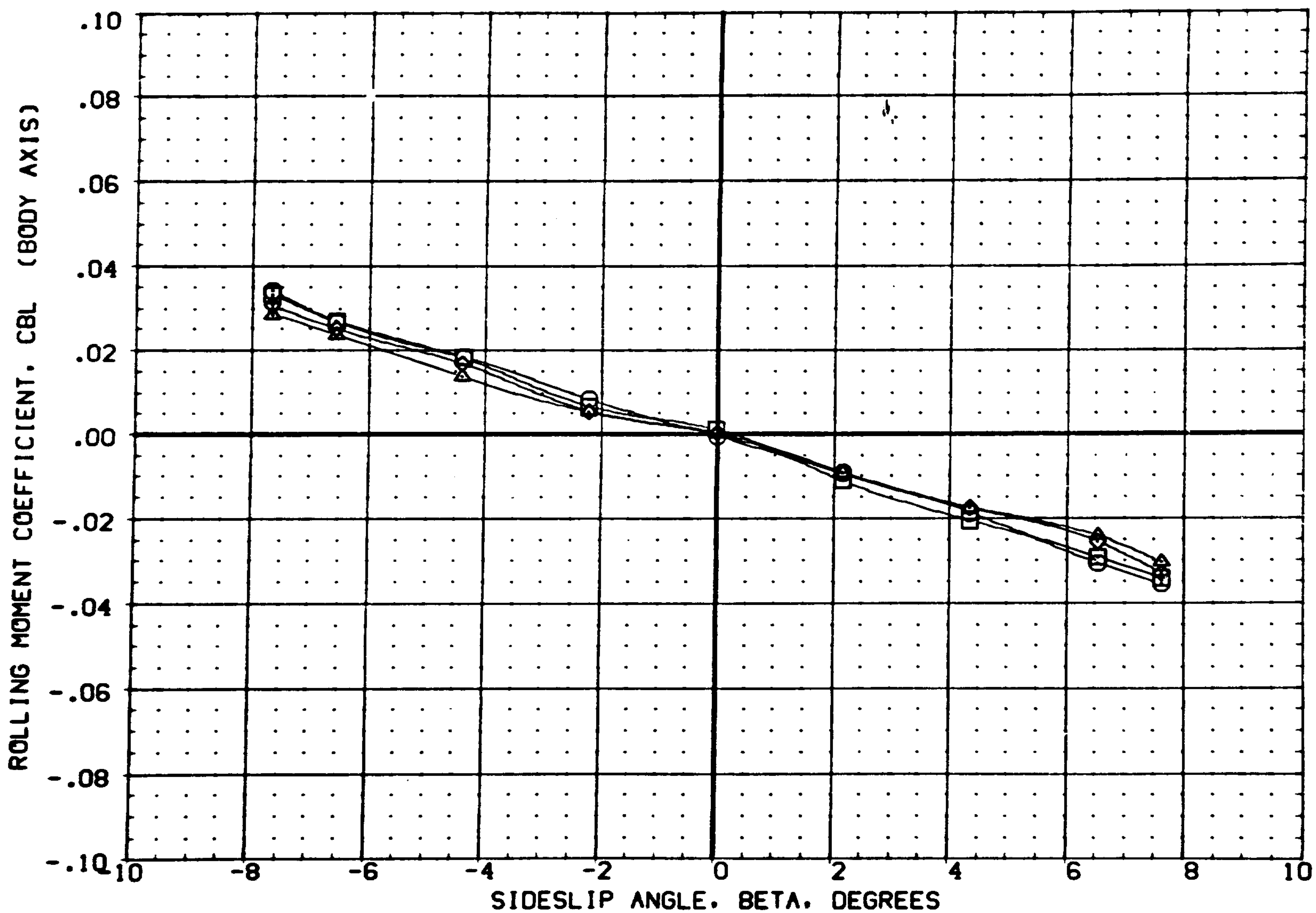


PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ047)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(BBZ048)	□	AMES 87-710 IA12C O1 T1 S1	.000	13.170	.456	1.000
(BBZ051)	◇	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
(BBZ052)	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



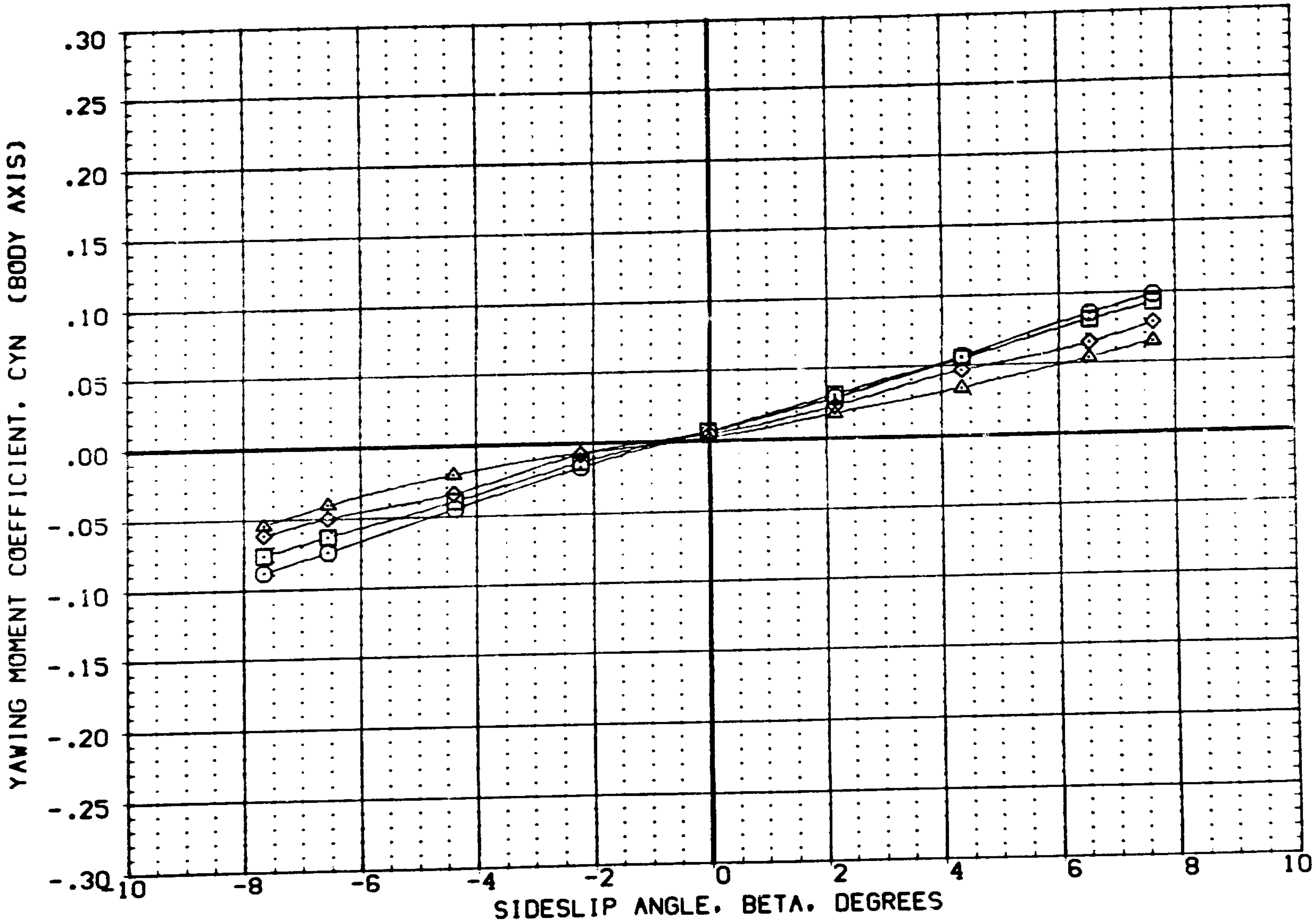
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BBZ047)	○	AMES 87-710 IA12C 01 T1 S1
(BBZ048)	□	AMES 87-710 IA12C 01 T1 S1
(BBZ051)	◇	AMES 87-710 IA12C 01 T1 S1
(BBZ052)	△	AMES 87-710 IA12C 01 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	13.170	.456	1.000
.000	23.860	.826	1.000
.000	41.000	1.150	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



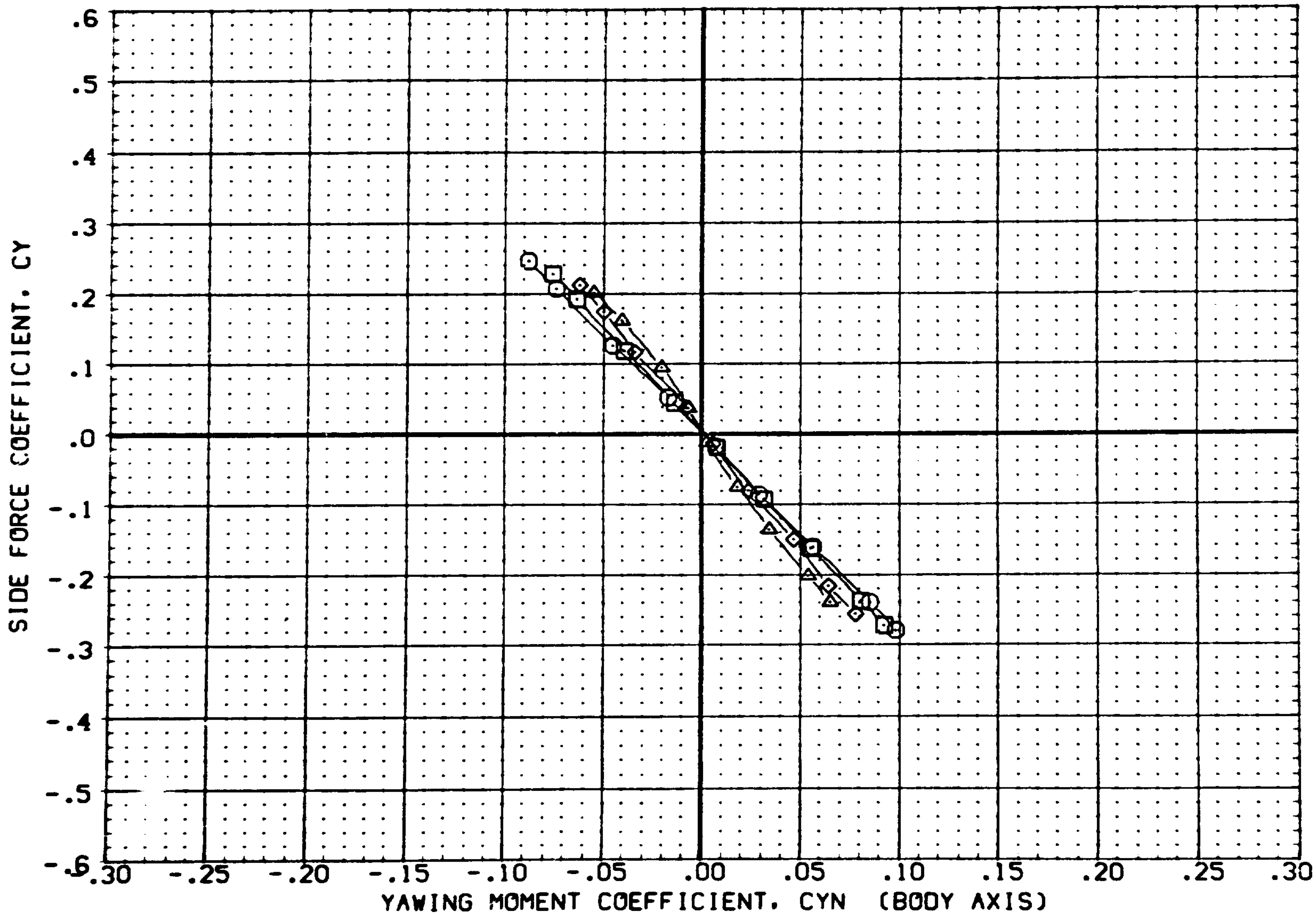
PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ047	○	AMES 87-710 IA12C C1 T1 S1	.000			.000
BBZ048	□	AMES 87-710 IA12C O1 T1 S1	.000	13.170	.456	1.000
BBZ051	◇	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
BBZ052	△	AMES 87-710 IA12C O1 T1 S1	.000	41.000	1.150	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME SIZE EFFECTS ON LATERAL CHARACTERISTICS

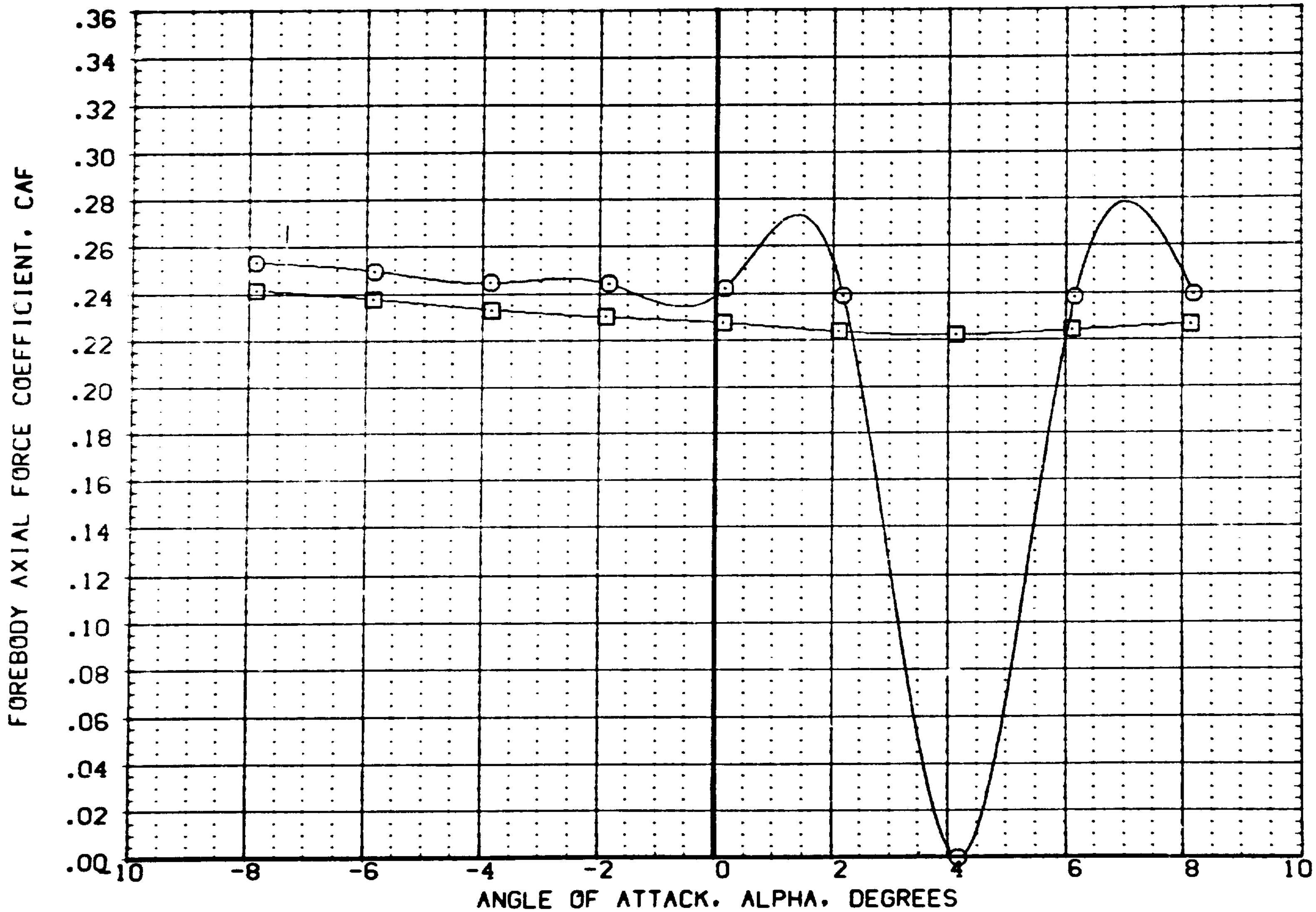
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ054)	○	AMES 87-710 IA12C C1 T1 S1
(BZ057)	□	AMES 97-710 IA12C C1 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

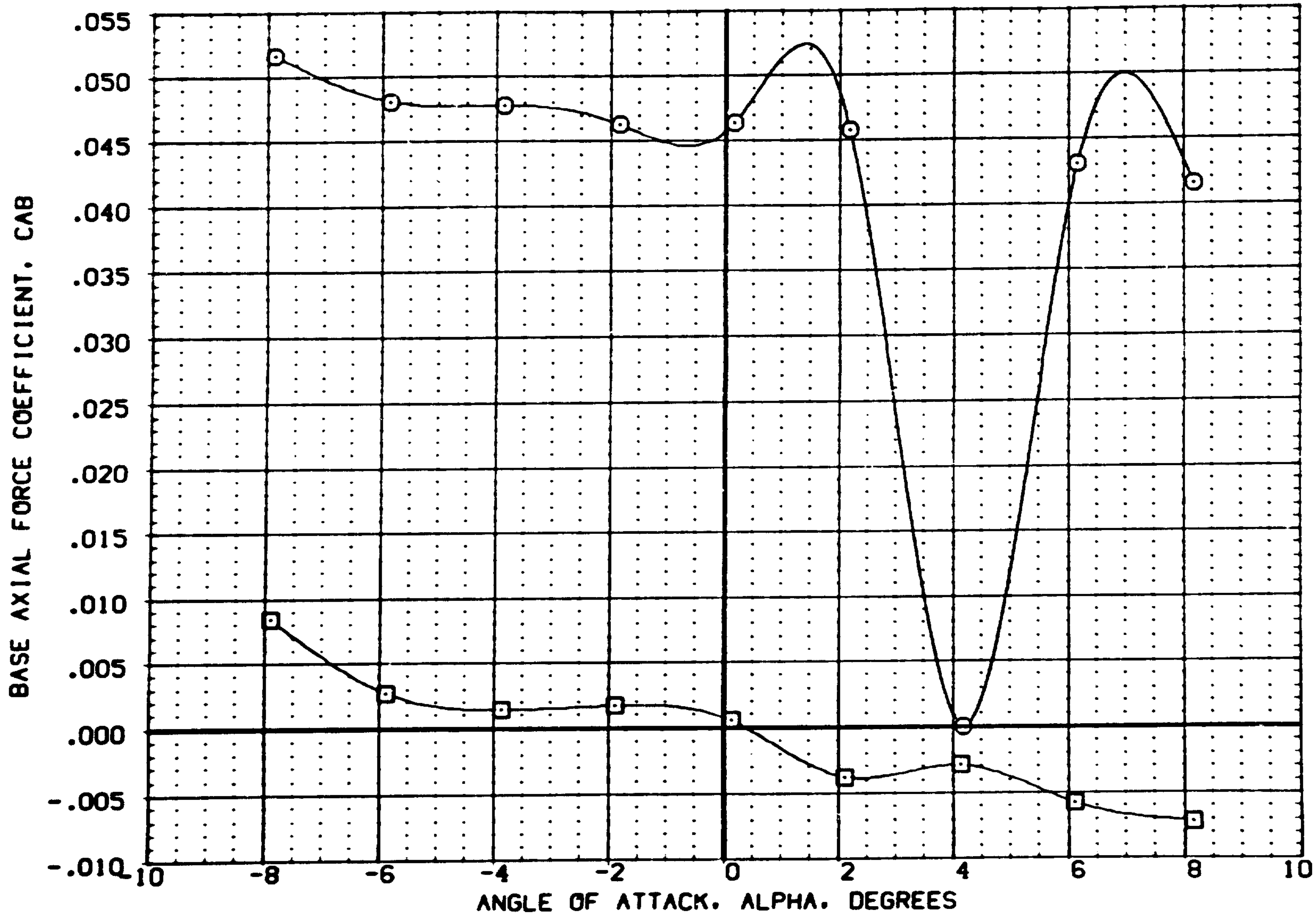


PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ054)	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
(CBZ057)	□	AMES 87-710 IA12C 01 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

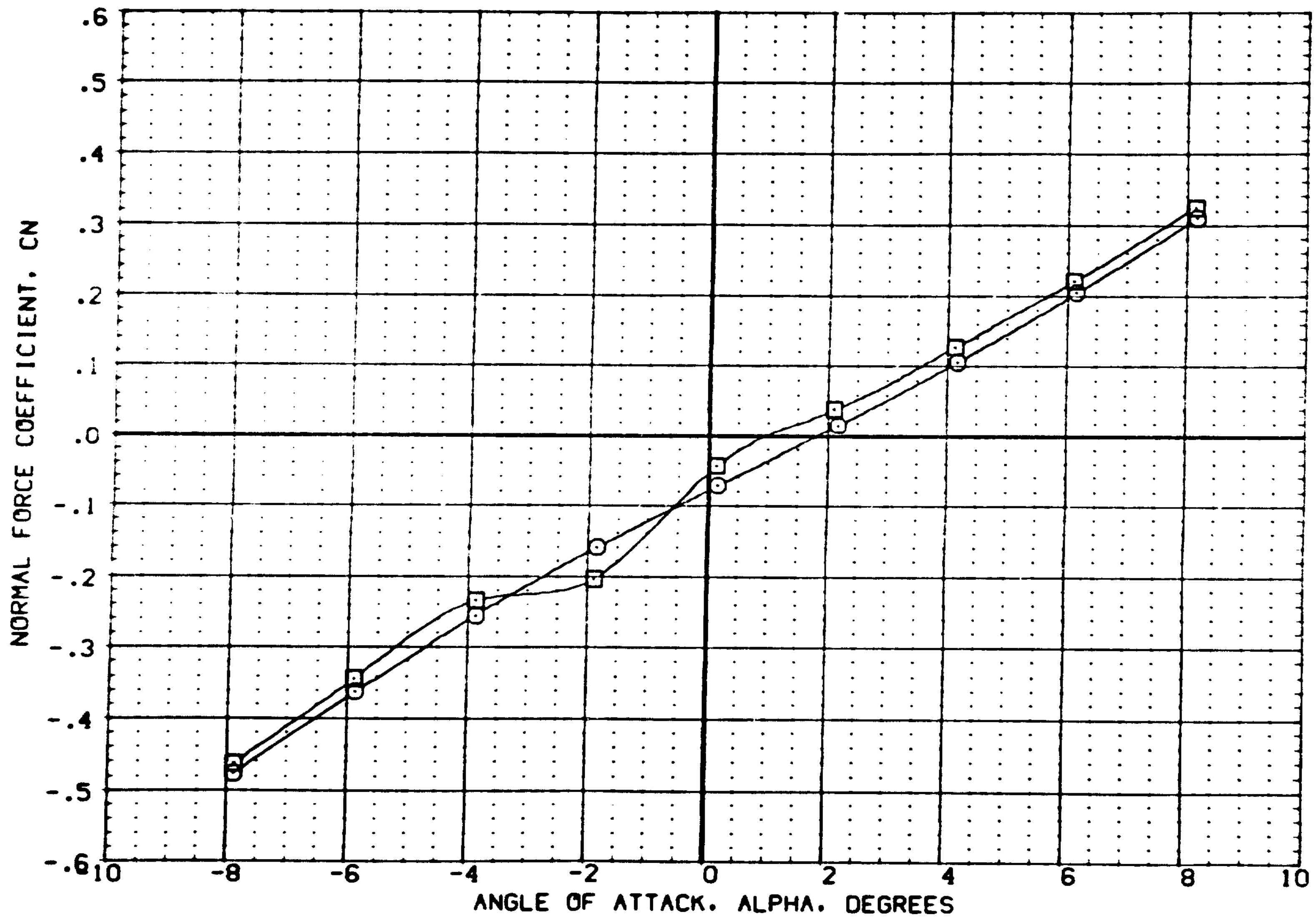


PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

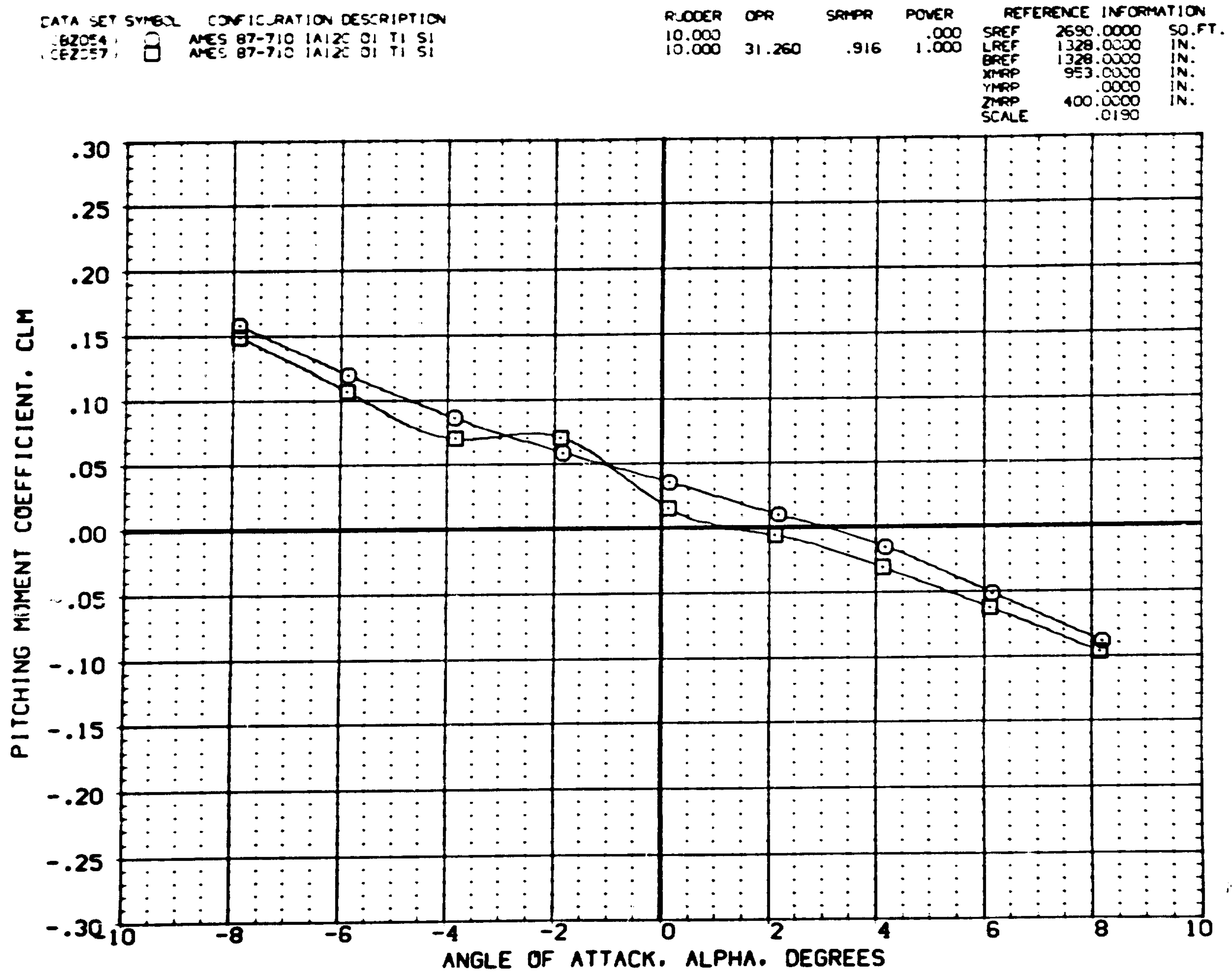
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
[illegible]BZ054	⊙	AMES 87-710 IA12C C1 T1 S1	10.000			.000
[illegible]EZ157	□	AMES 87-710 IA12C C1 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



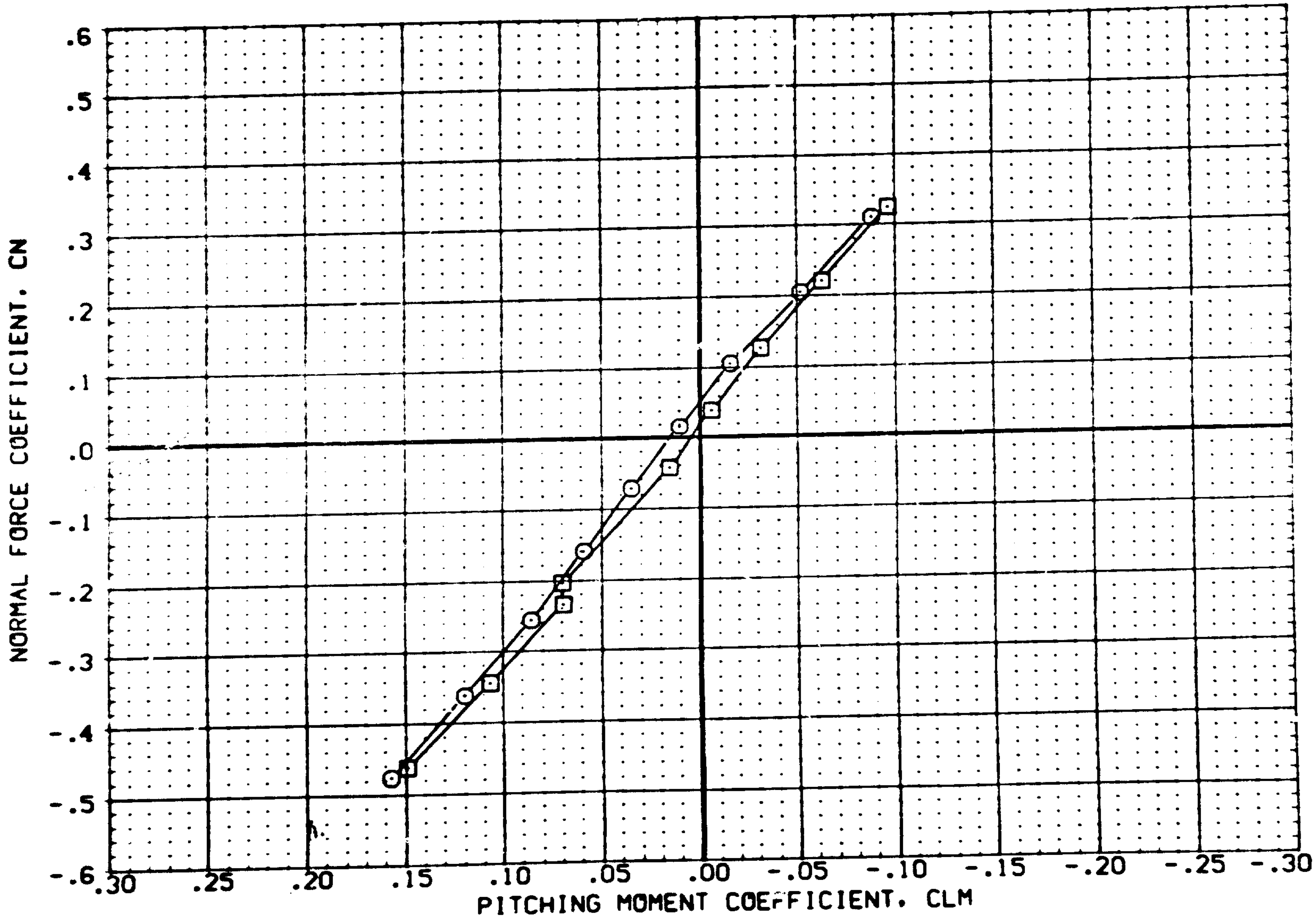
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZC54)	—	AMES 87-710 IA12C 01 T1 S1	10.000			.000
(BZC57)	□	AMES 87-710 IA12C 01 T1 S1	10.000	31.260	.916	1.000

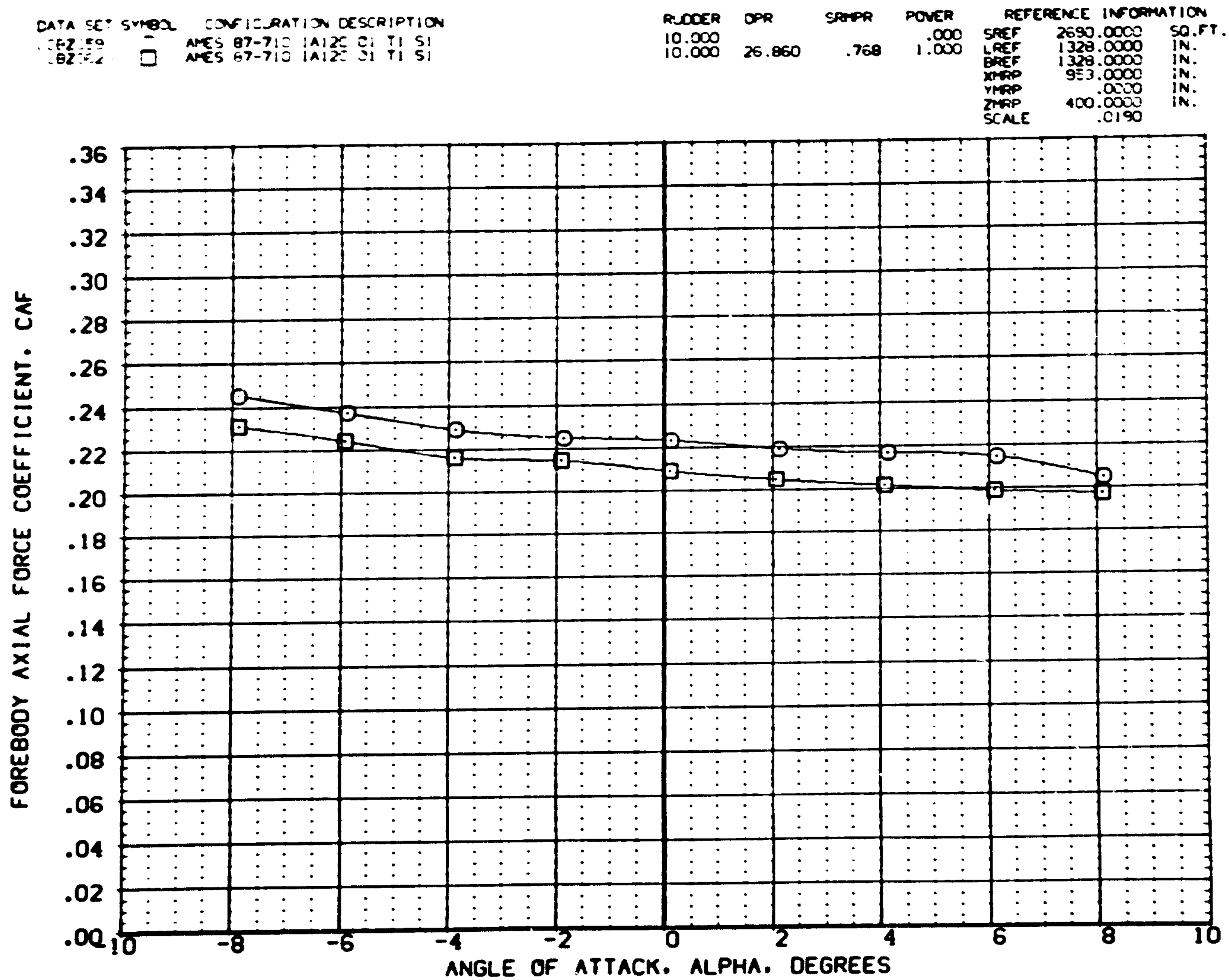
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



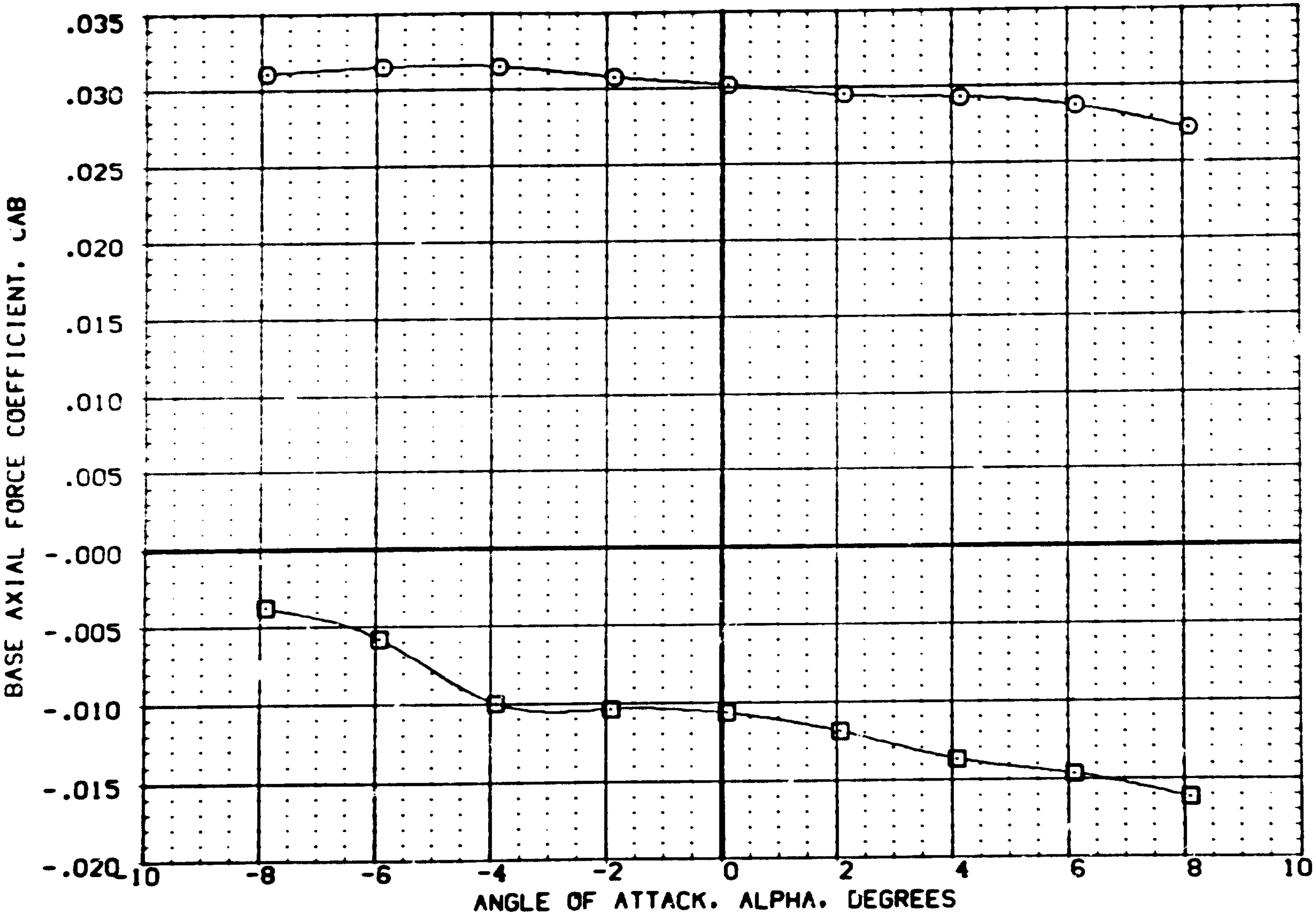
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	YR	SRMPR	POWER
CBZ059	○	AMES 87-710 (A12C O1 T1 S1	10.000			.000
CBZ062	□	AMES 87-710 (A12C O1 T1 S1	10.000	26.860	.768	1.000

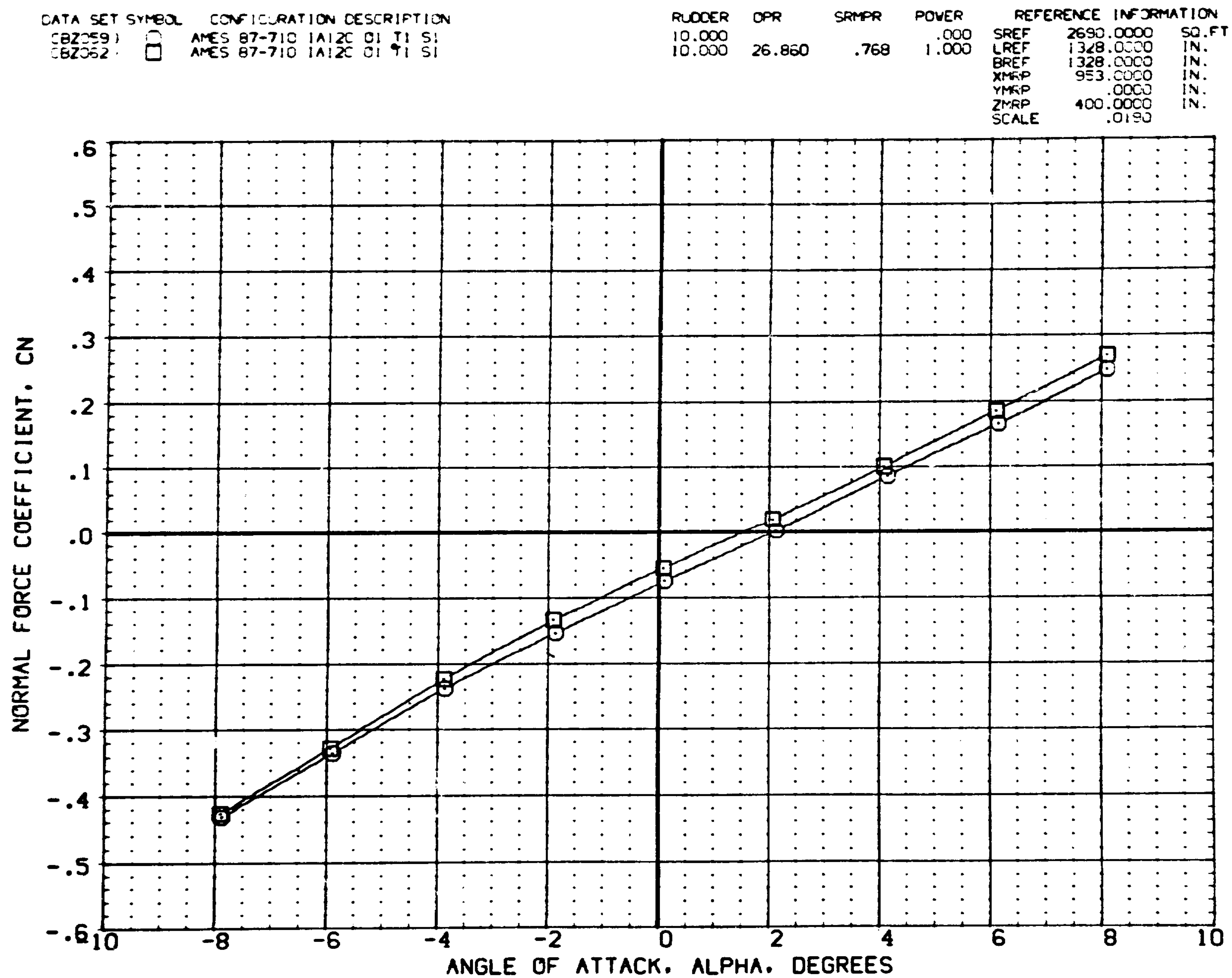
REFERENCE INFORMATION

SREF	2630.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



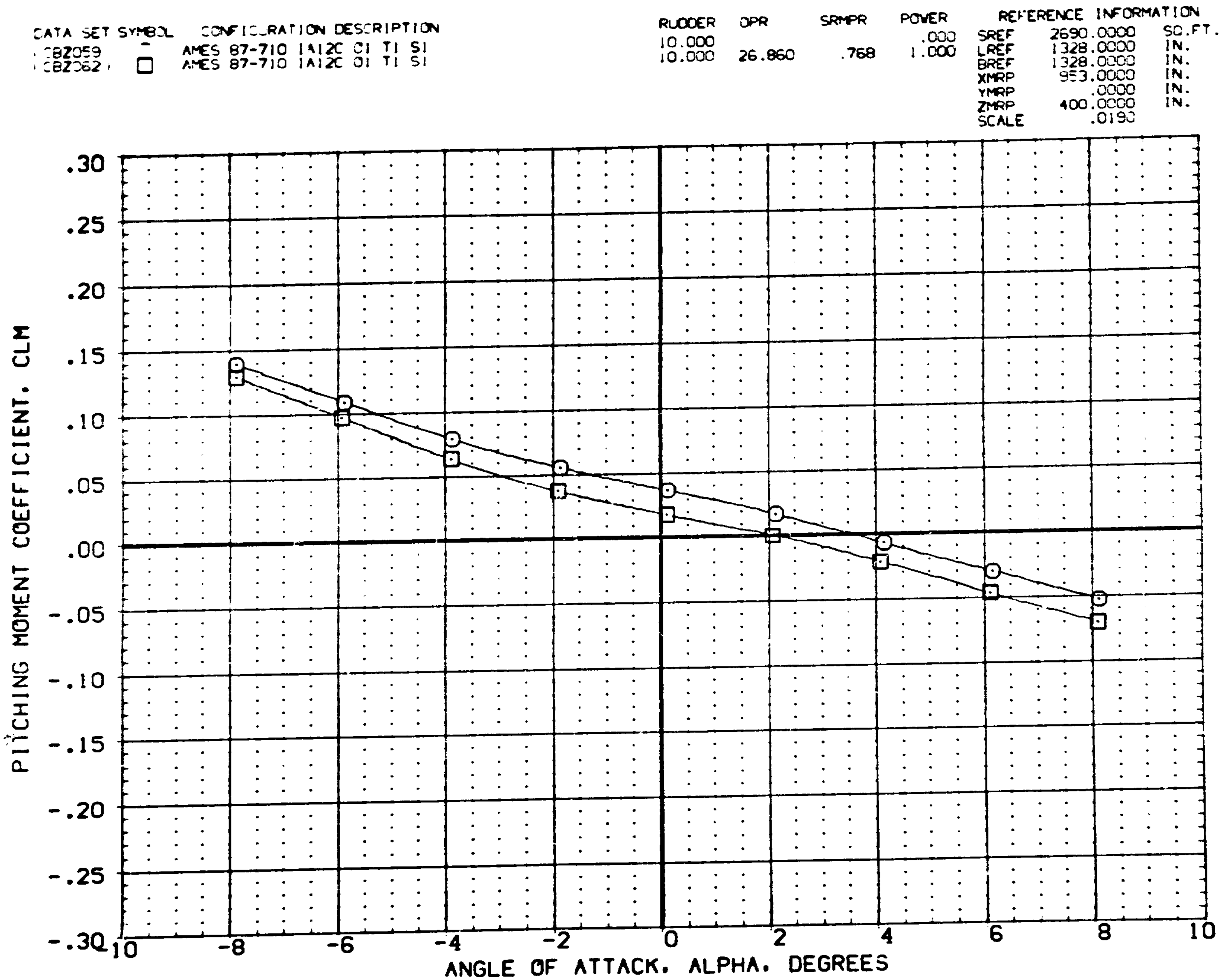
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



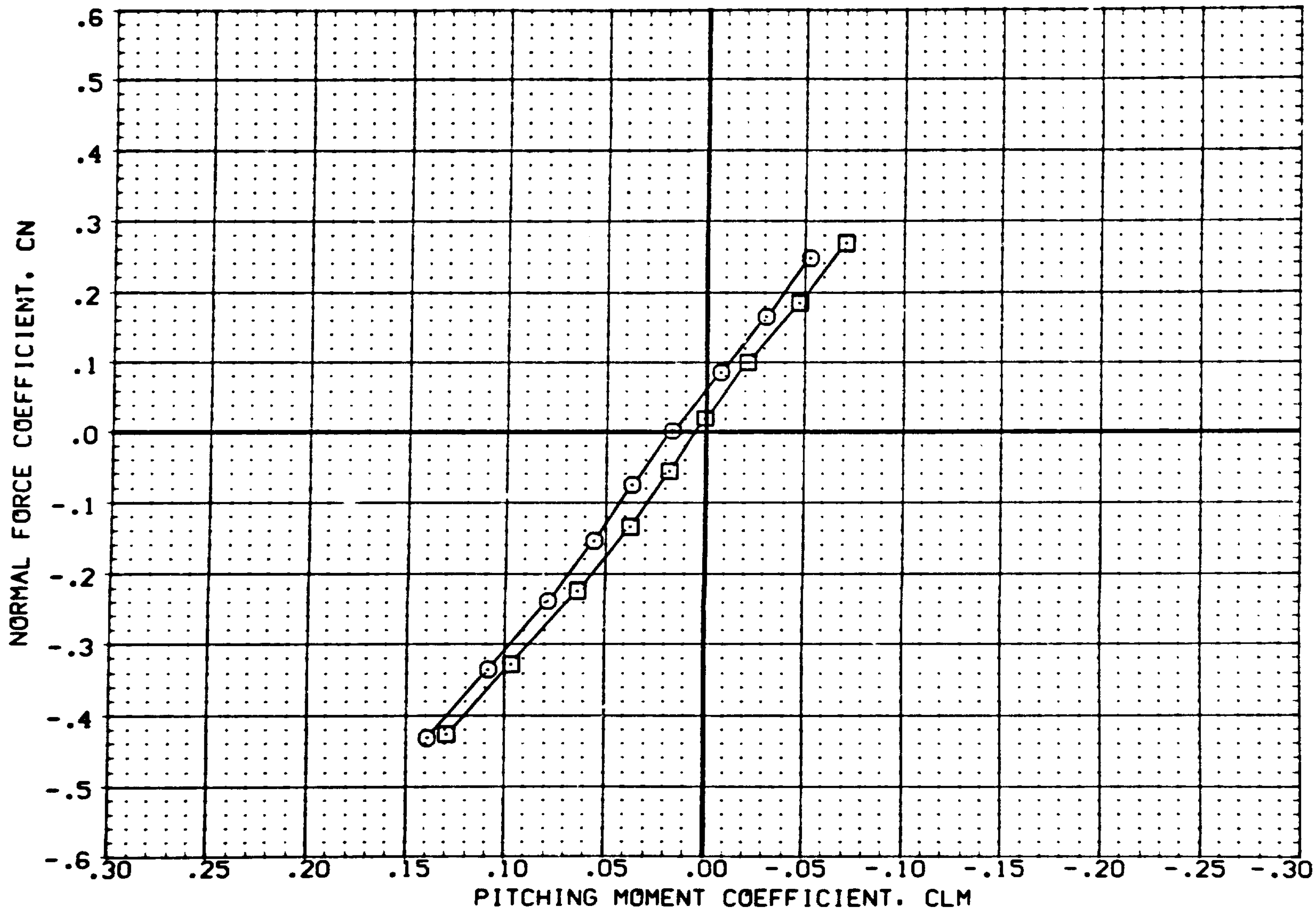
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(CBZ059)	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
(CBZ062)	□	AMES 87-710 IA12C 01 T1 S1	10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



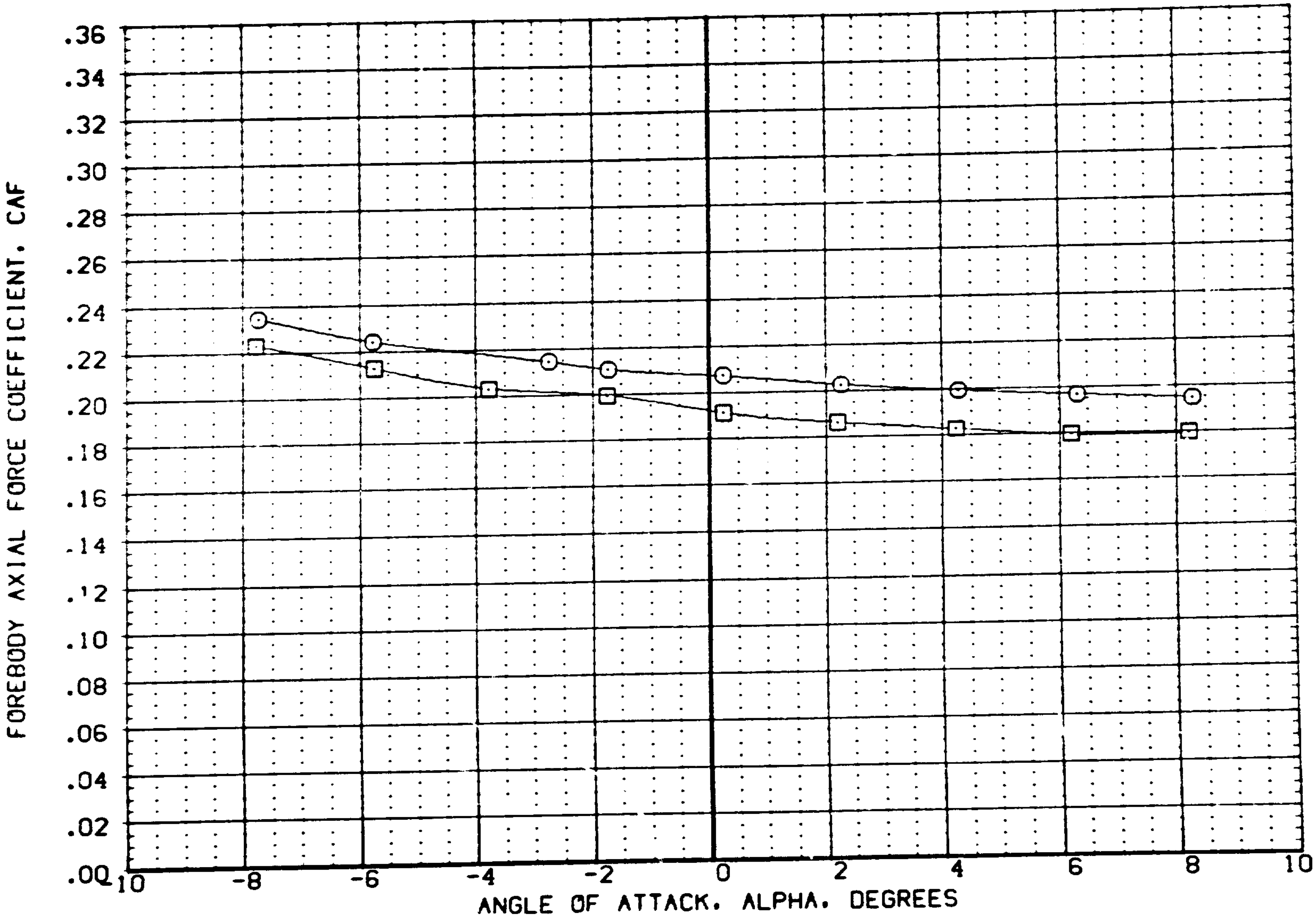
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ063)	—	AMES 87-710 IA12C O1 T1 S1
(BZ066)	□	AMES 87-710 IA12C O1 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

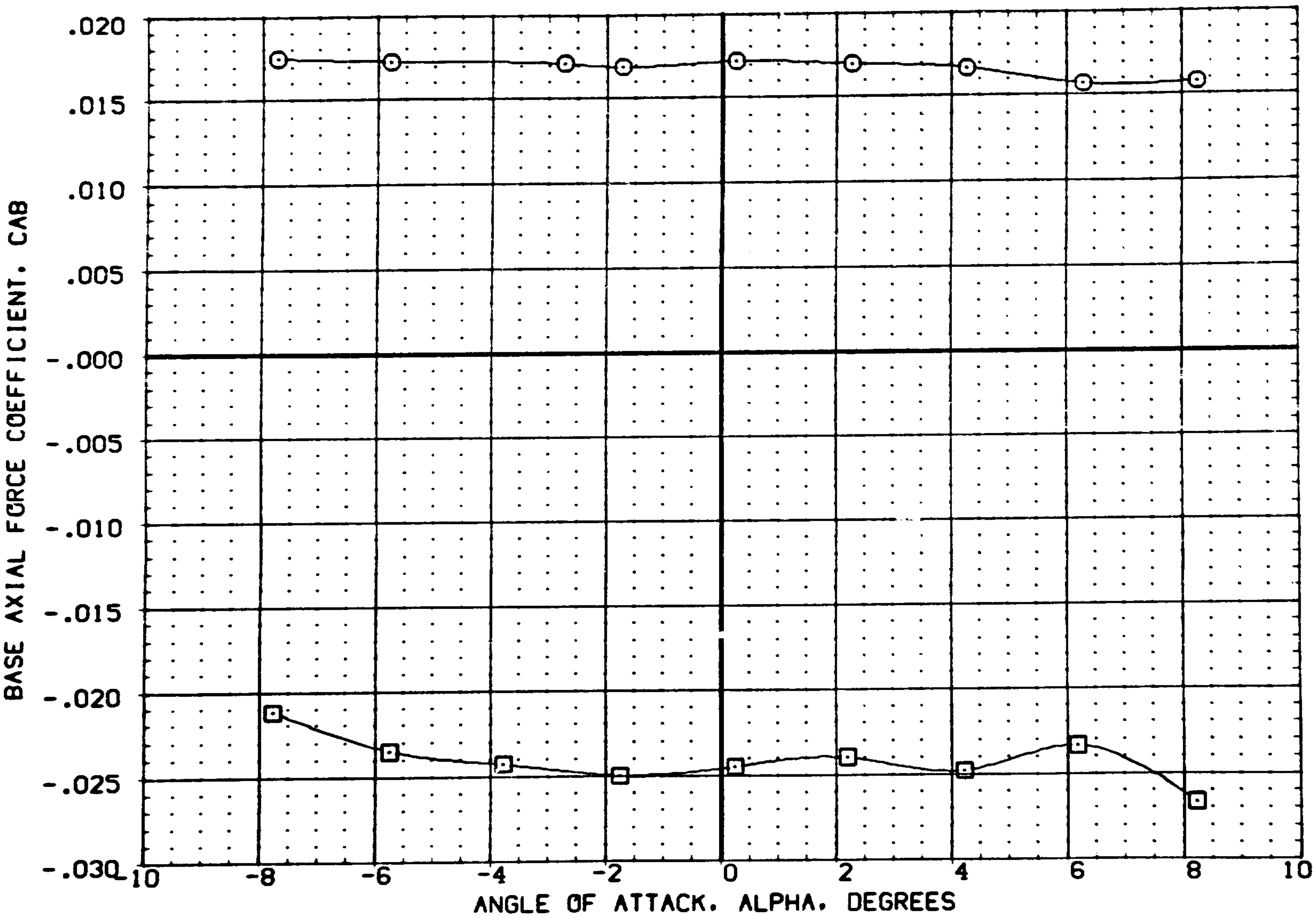


PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ063)	○	AMES 87-710 IA12C C1 T1 S1	10.000			.000
(CBZ066)	□	AMES 87-710 IA12C C1 T1 S1	10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



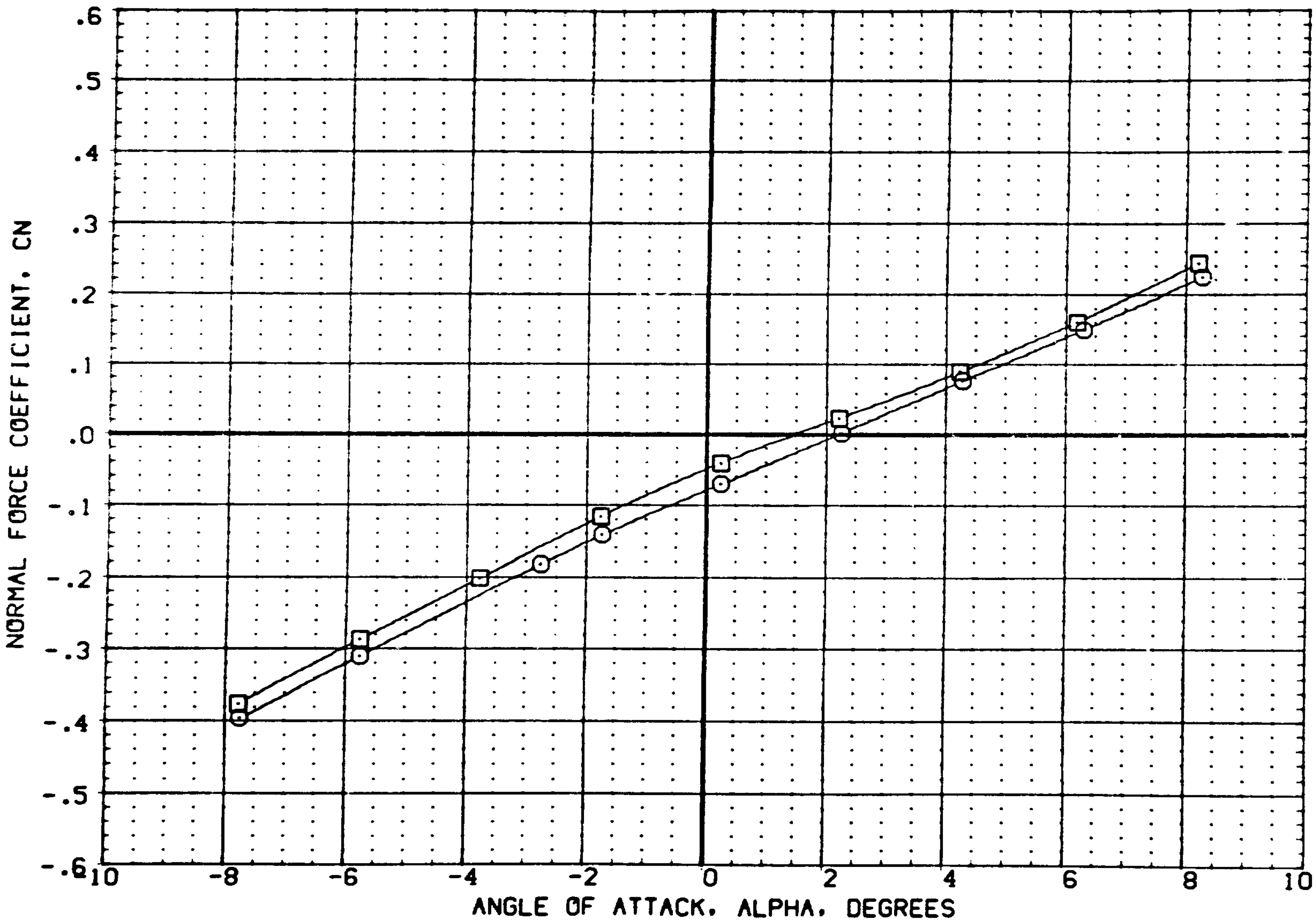
PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ063)	○	AMES 87-710 IA12C C1 T1 S1	10.000			.000
(CBZ066)	□	AMES 87-710 IA12C O1 T1 S1	10.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

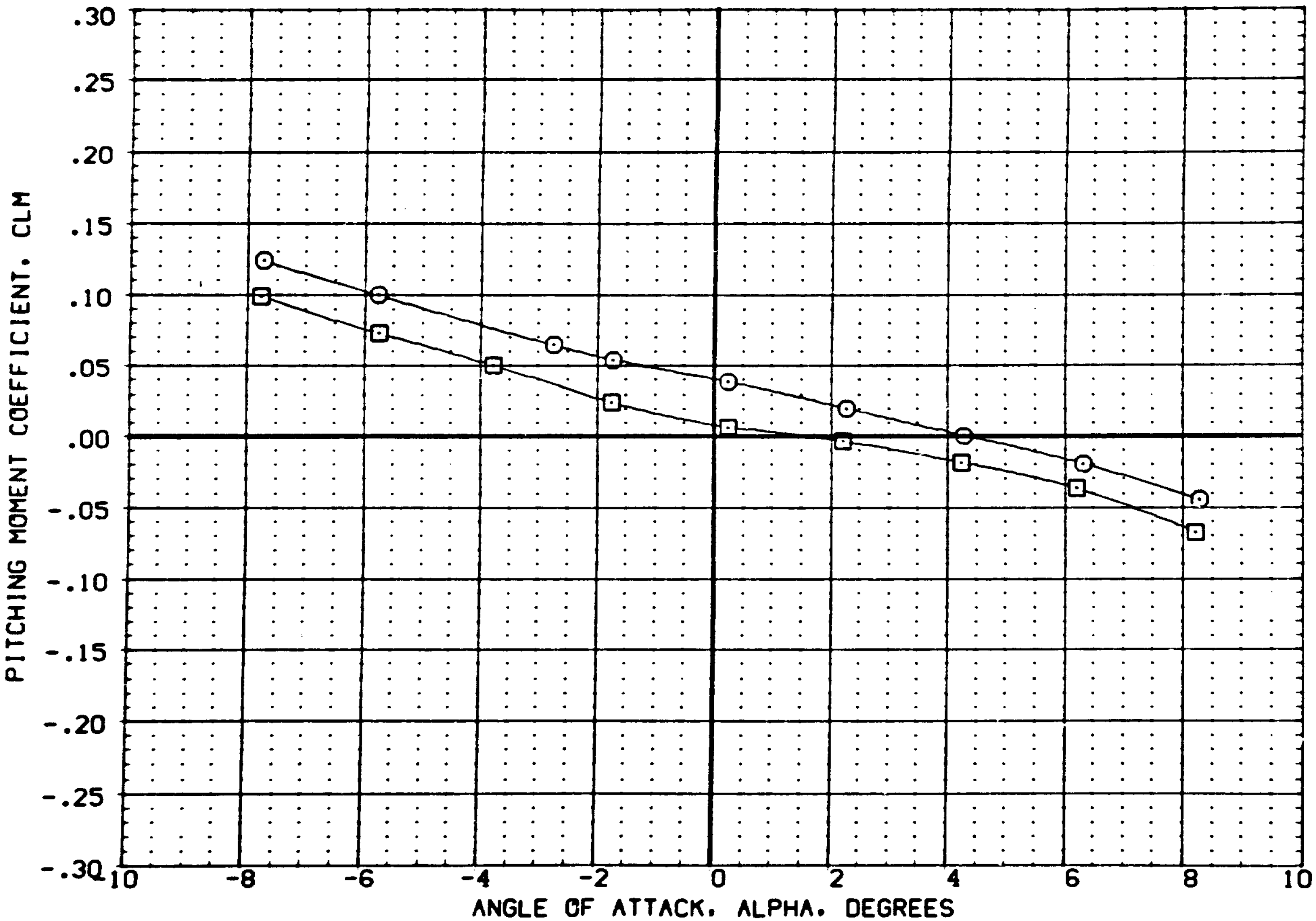


PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ063	○	AMES 87-710 IA12C C1 T1 S1	10.000			.000
CBZ065	□	AMES 87-710 IA12C C1 T1 S1	10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

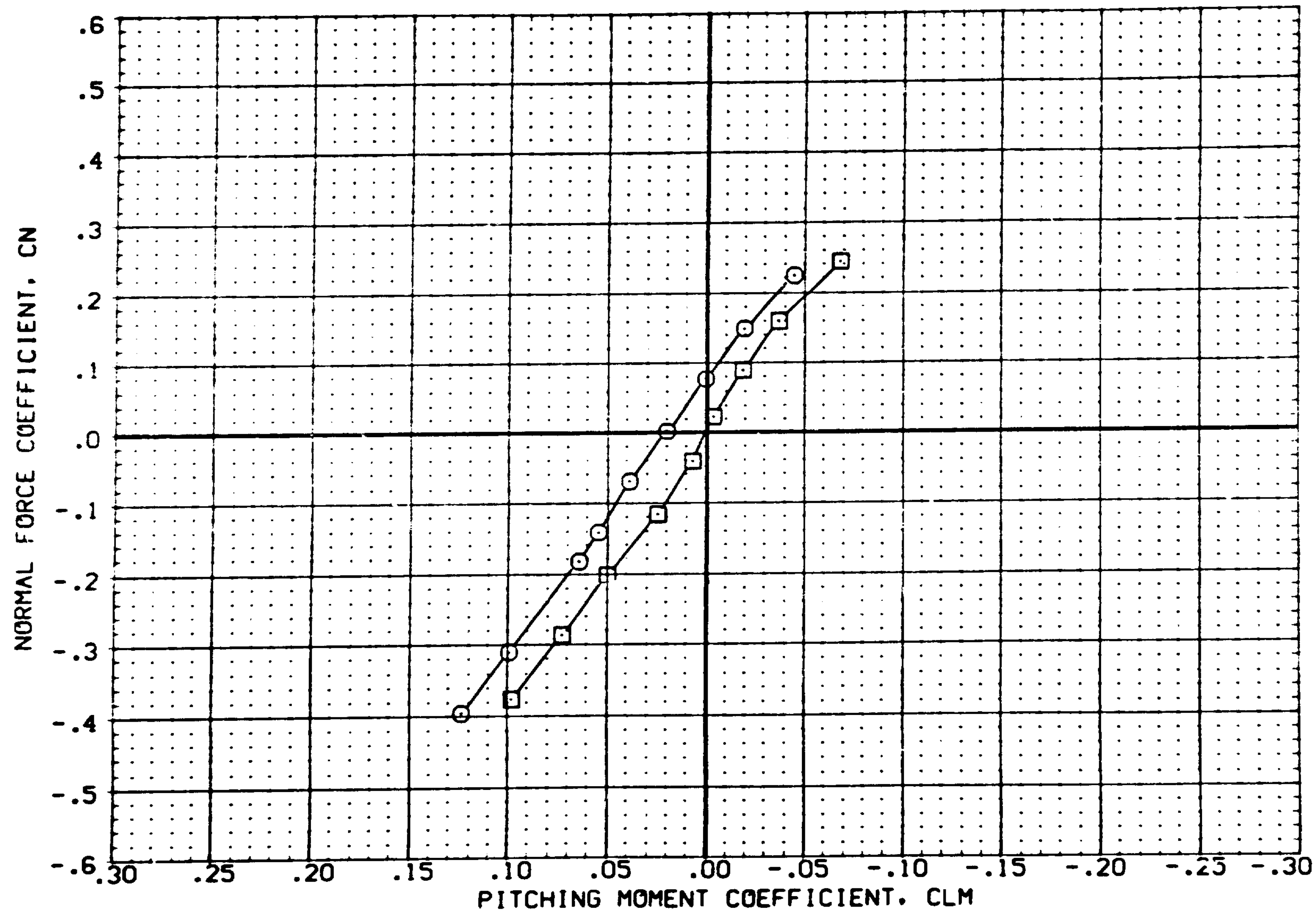
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CBZ063)	⊙	AMES 87-710 IA12C C1 T1 S1
(CBZ066)	□	AMES 87-710 IA12C C1 T1 S1

RUDDER	DPR	SRMPR	POWER
10.000			.000
10.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

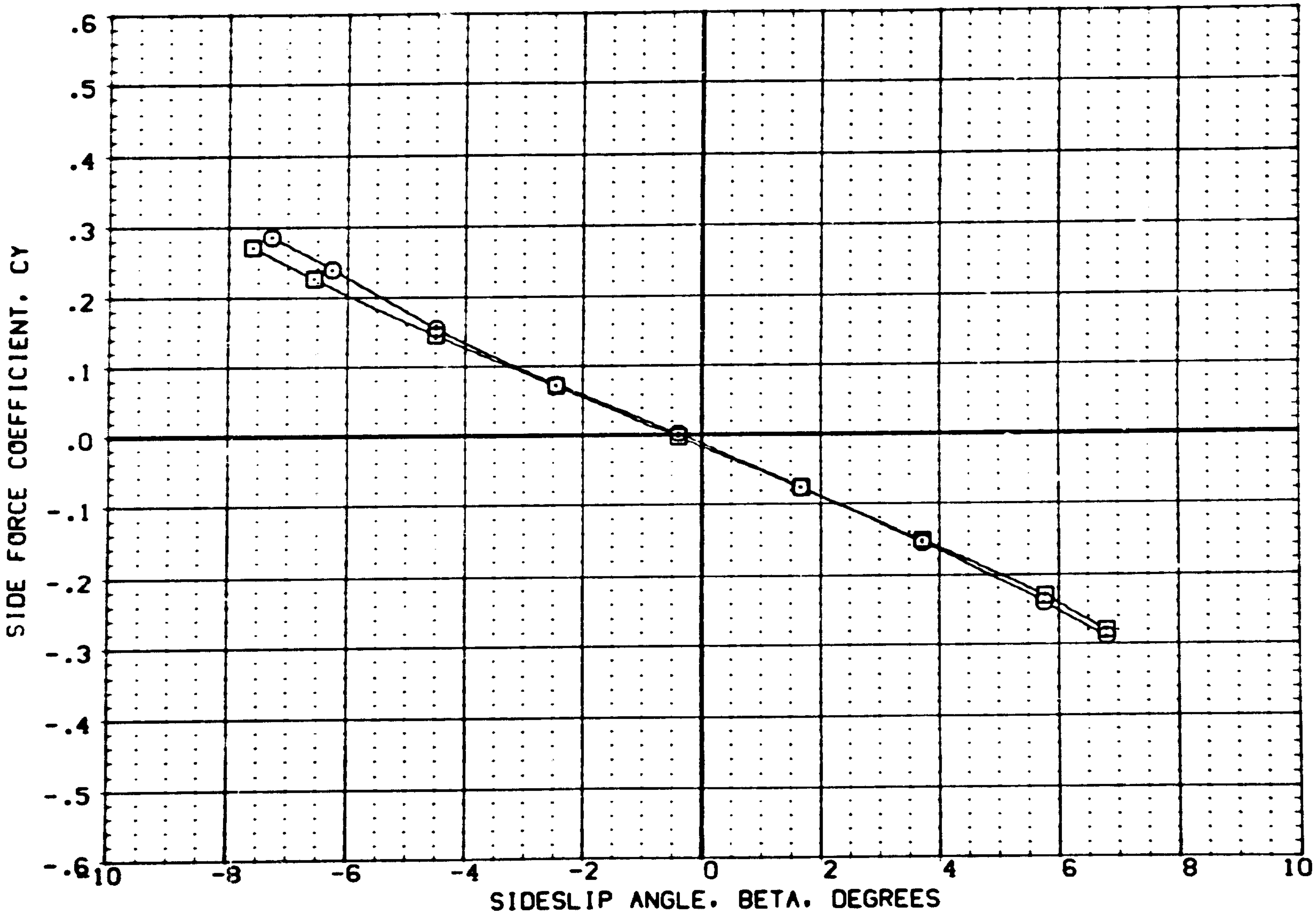


PLUME AND RUDDER DEFLECTION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ055)	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
(BBZ056)	□	AMES 87-710 IA12C 01 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



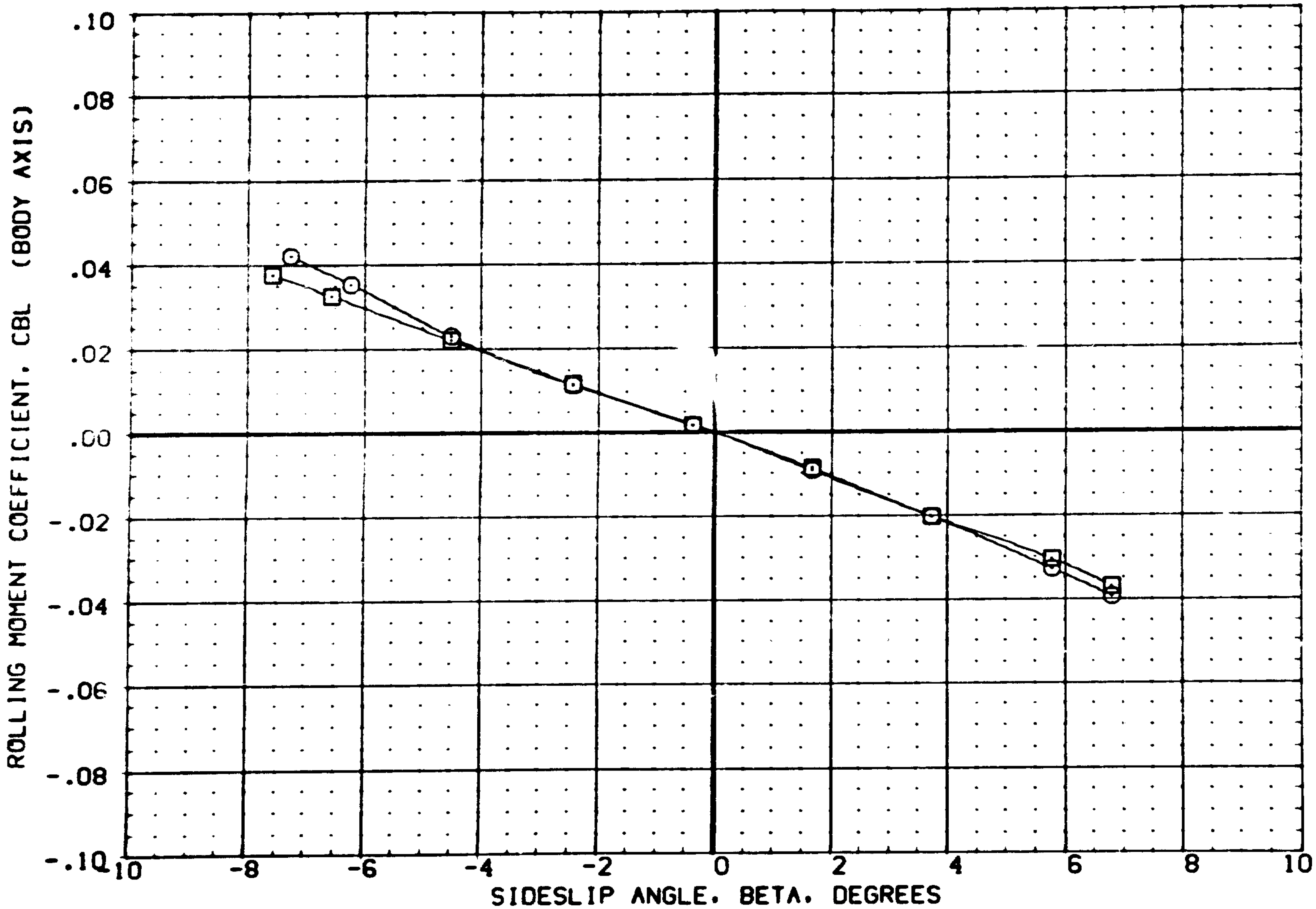
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ055	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
6BZ056	□	AMES 87-710 IA12C 01 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



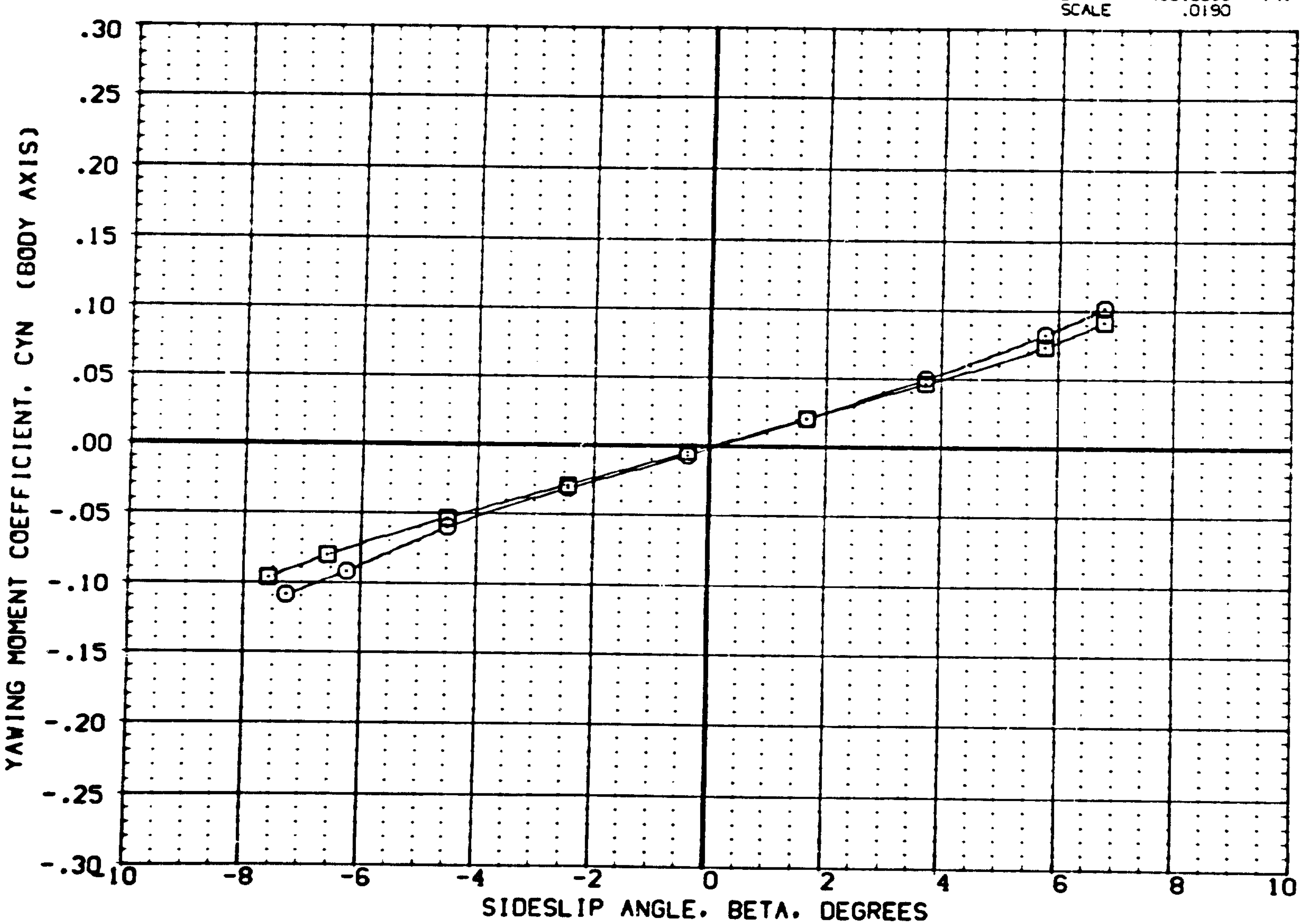
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ055	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
BBZ056	□	AMES 87-710 IA12C 01 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

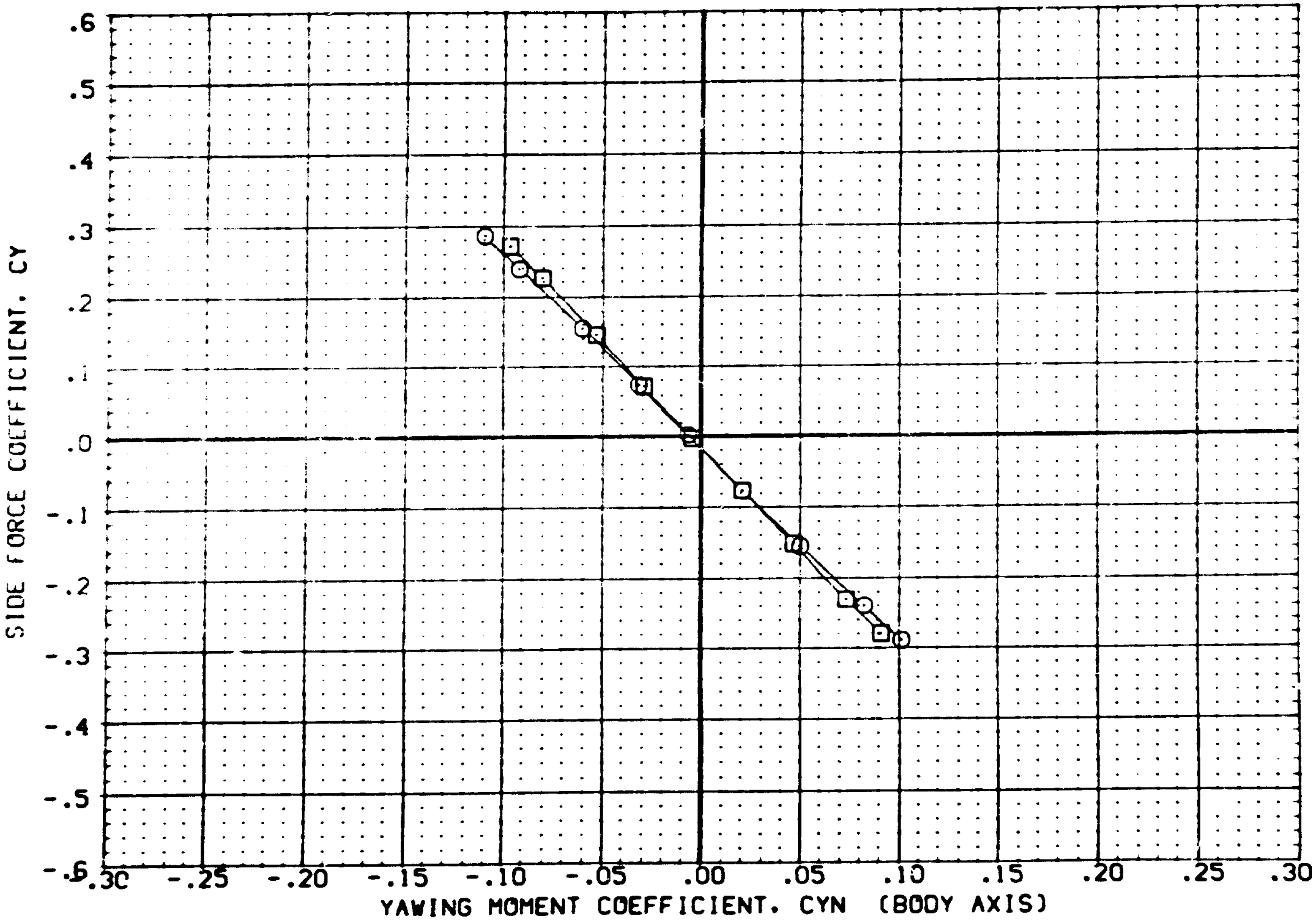


PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(B8Z055)	⊙	AMES 87-710 (A12C C1 T1 S1	10.000			.000
(B8Z056)	□	AMES 87-710 (A12C C1 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

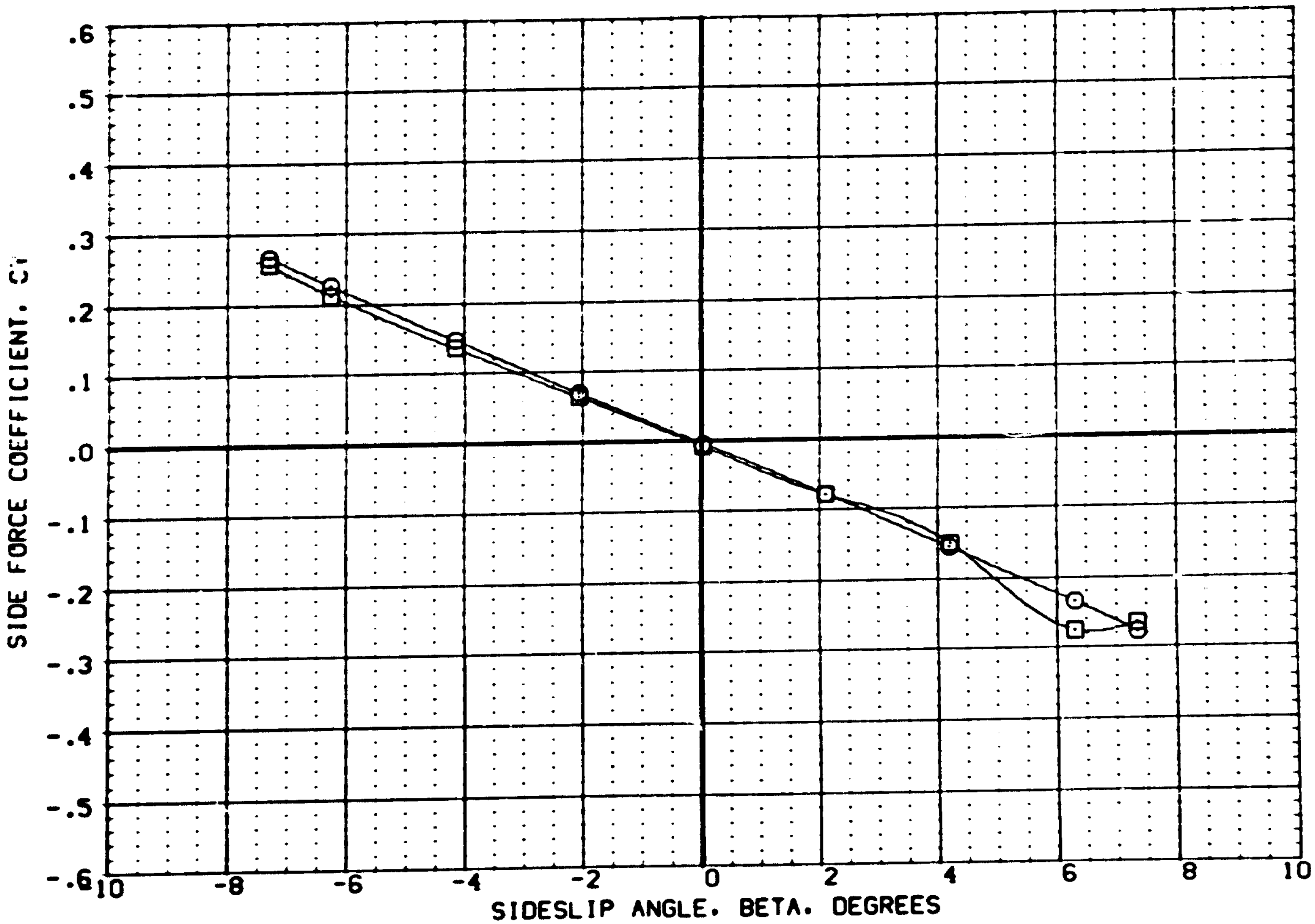


PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ060	○	AMES 87-710 IA12C C1 T1 S1	10.000			.000
6BZ061	□	AMES 87-710 IA12C O1 T1 S1	10.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



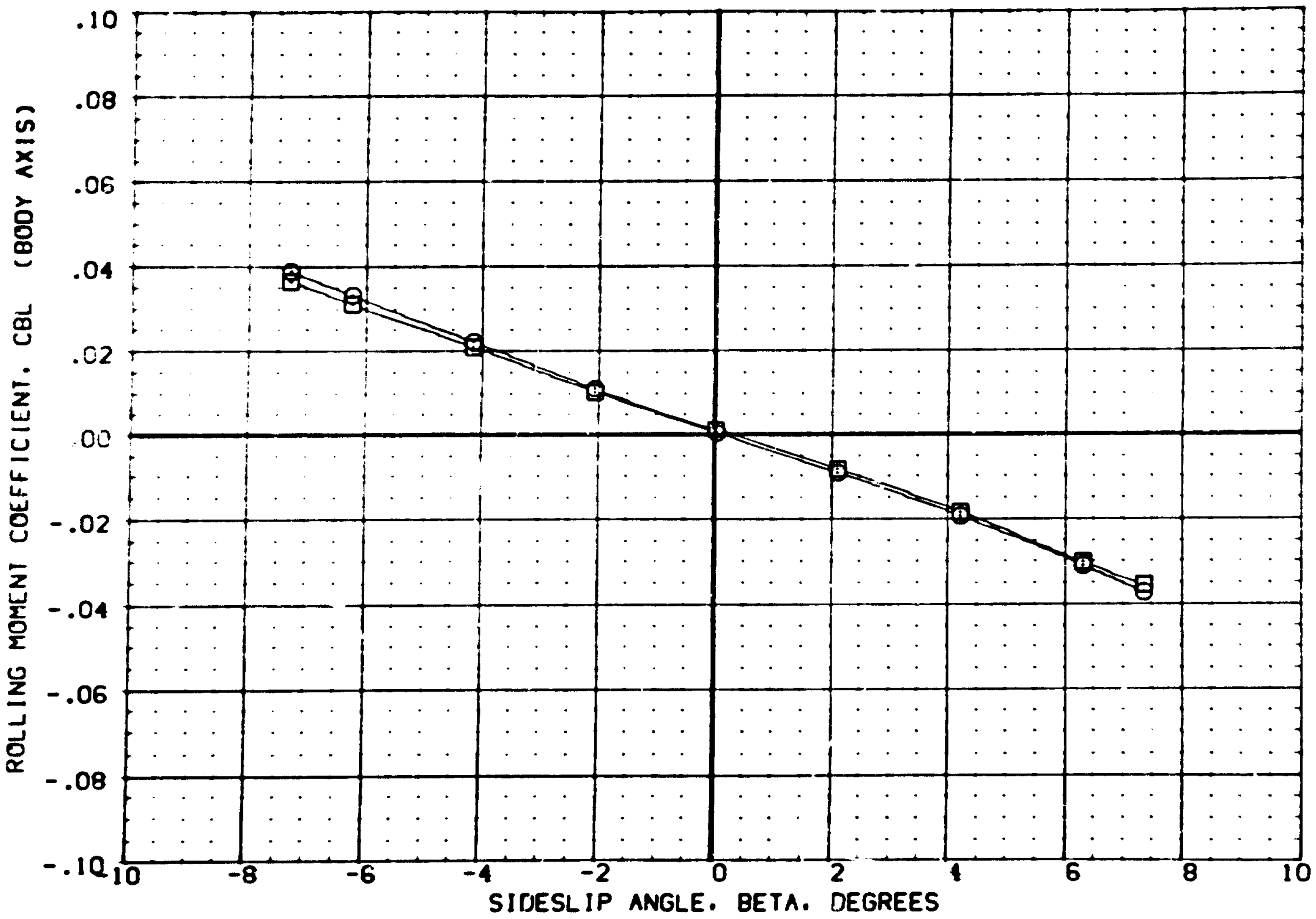
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
88Z06[illegible]	–	AMES 67-710 (A12C O1 T1 S1	10.000			.000
88Z[illegible]	□	AMES 67-710 (A12C O1 T1 S1	10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

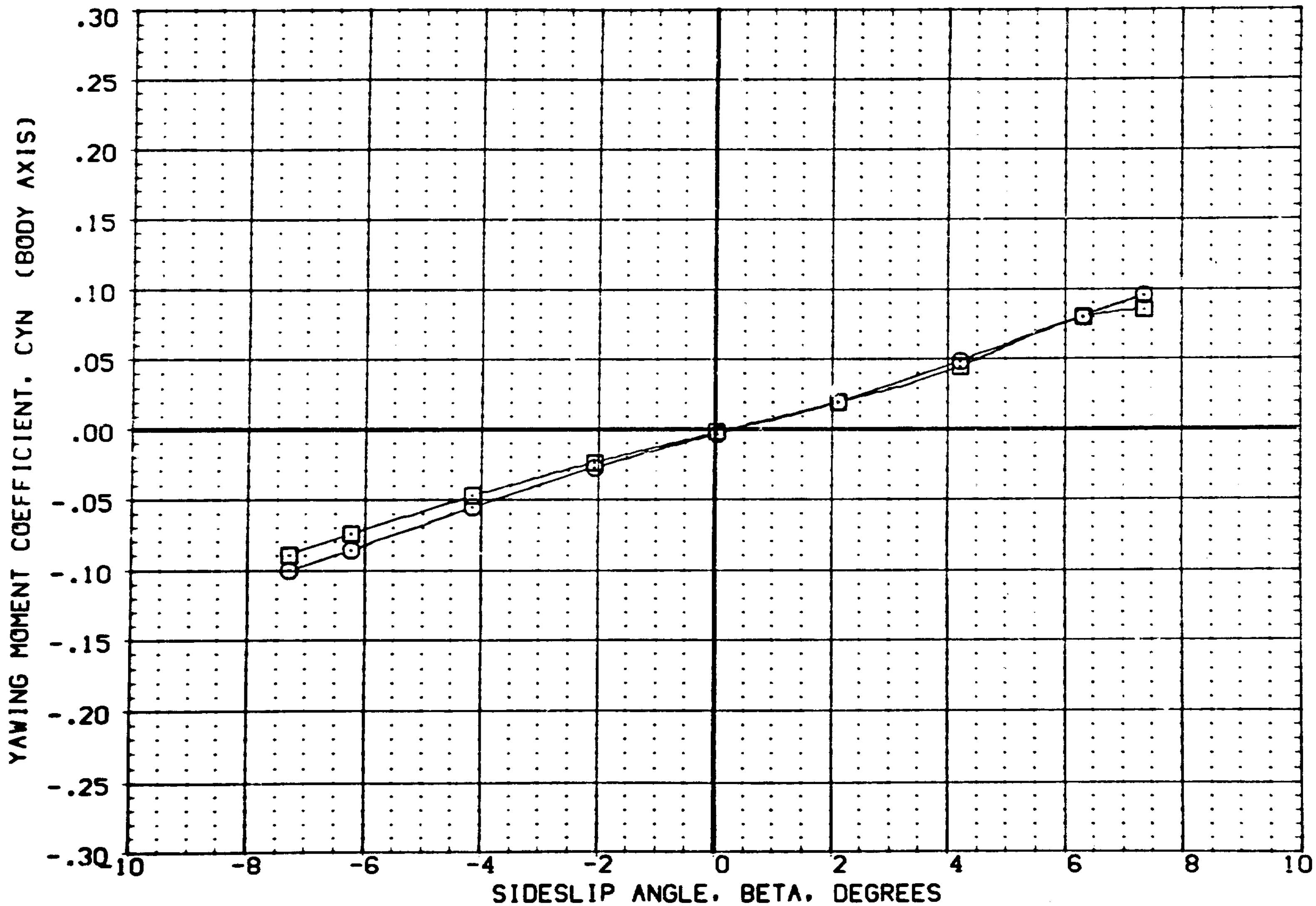


PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ060	⊙	AMES 87-710 IA12C C1 T1 S1	10.000			.000
6BZ061	□	AMES 87-710 IA12C O1 T1 S1	10.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ060	—	AMES 87-710 IA12C 01 T1 S1	10.000			.000
BBZ061	□	AMES 87-710 IA12C 01 T1 S1	10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

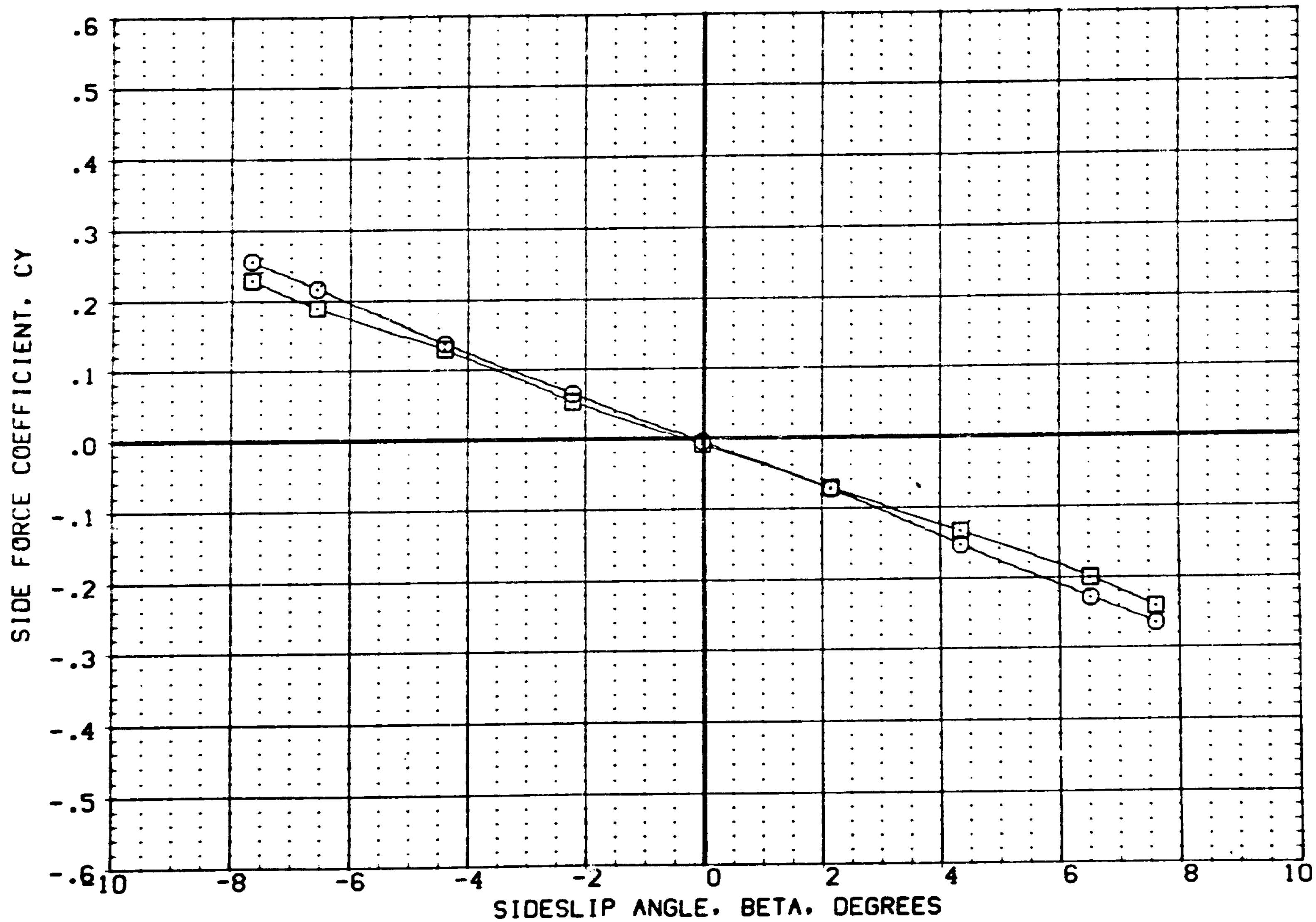
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
6BZ064	○	AMES 87-710 IA12C C1 T1 S1	10.000			.000
6BZ065	□	AMES 87-710 IA12C 01 T1 S1	10.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

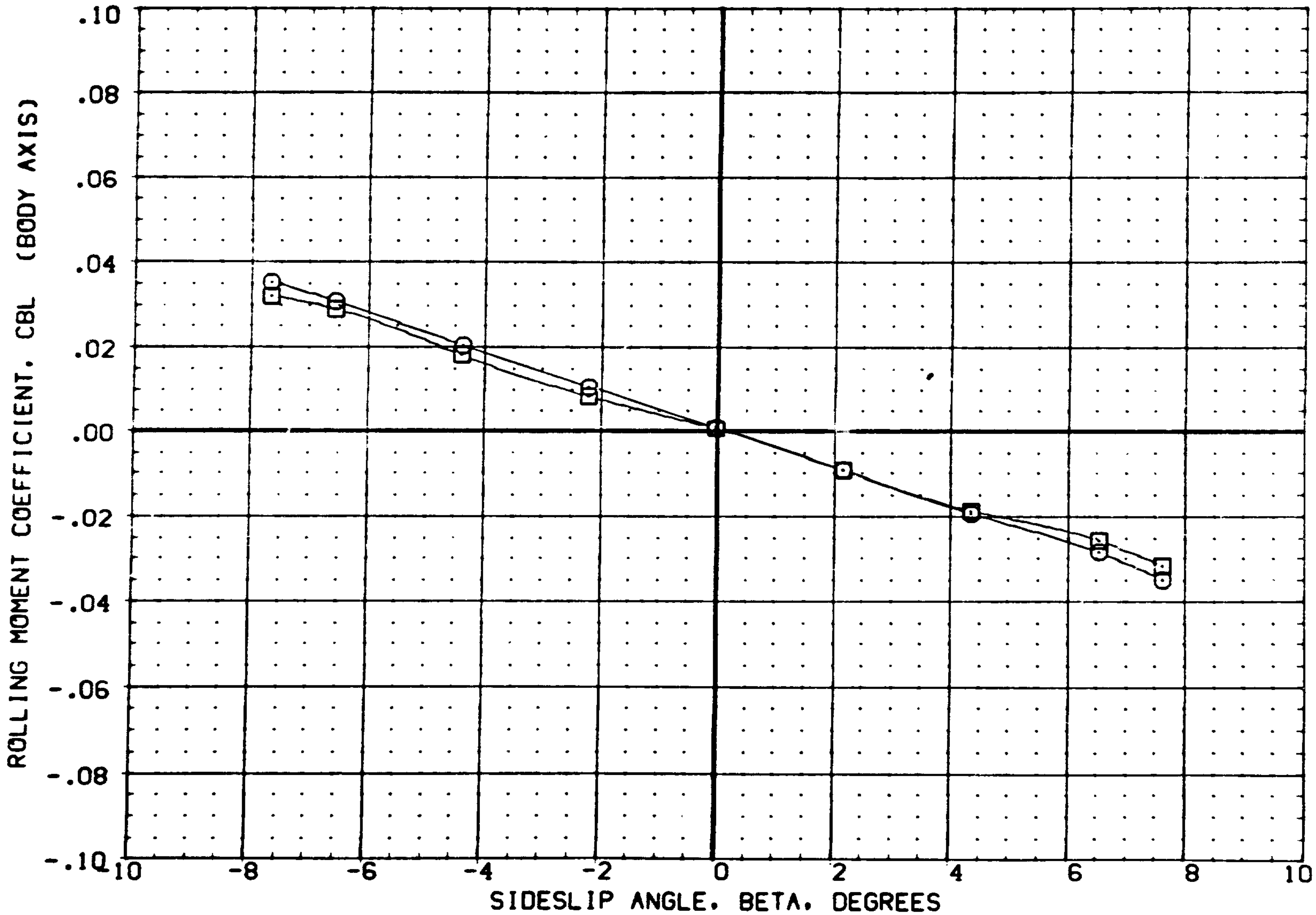


PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	PCVER
(BBZ064)	○	AMES 87-710 IA12C OI TI SI	10.000			.000
(BEZ065)	□	AMES 87-710 IA12C OI TI SI	10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

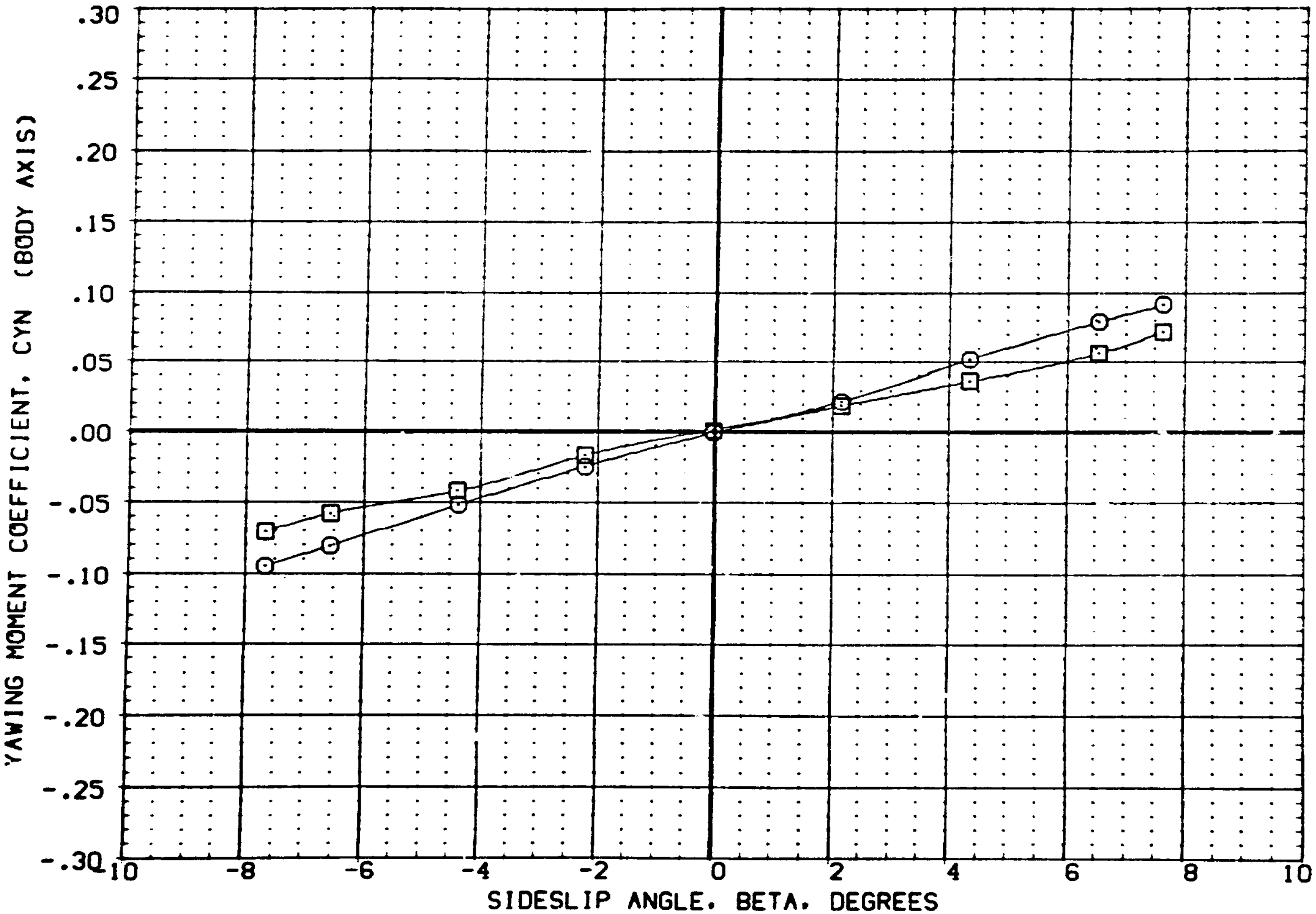


PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ064	○	AMES 87-710 IA12C 01 T1 S1	10.000			.000
BBZ065	□	AMES 87-710 IA12C 01 T1 S1	10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



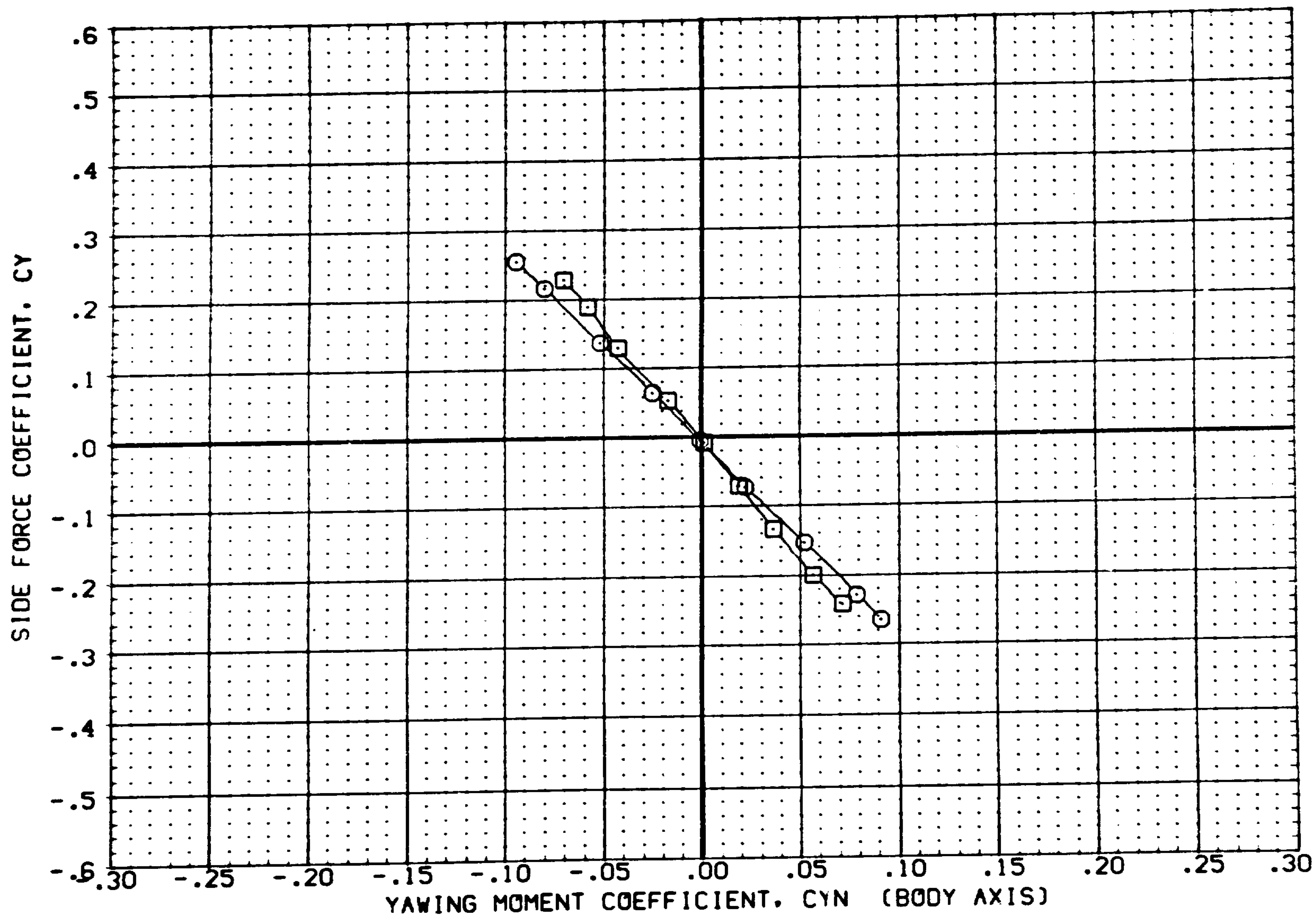
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BBZ064	○	AMES 87-710 IA12C C1 T1 S1
BBZ065	□	AMES 87-710 IA12C C1 T1 S1

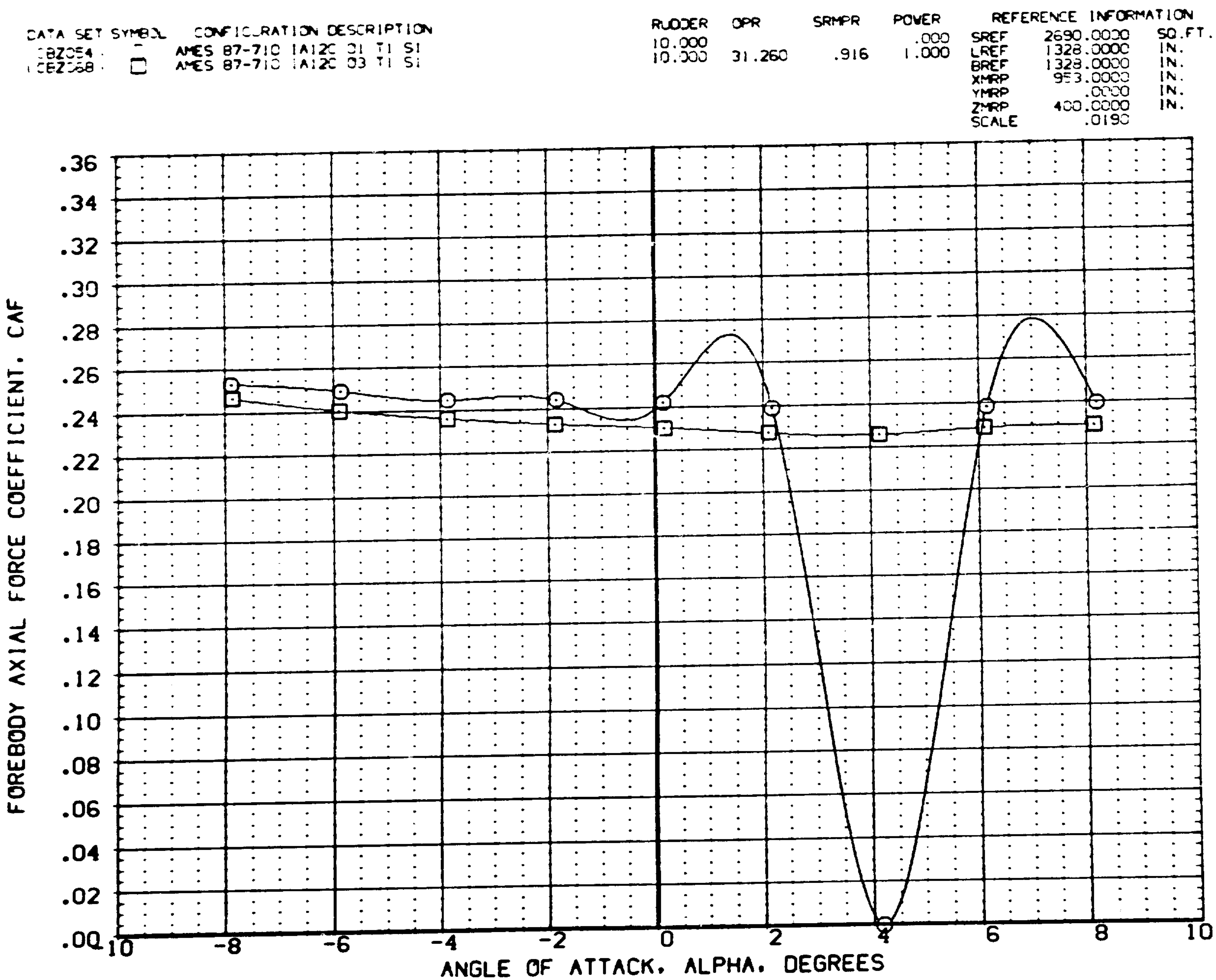
RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



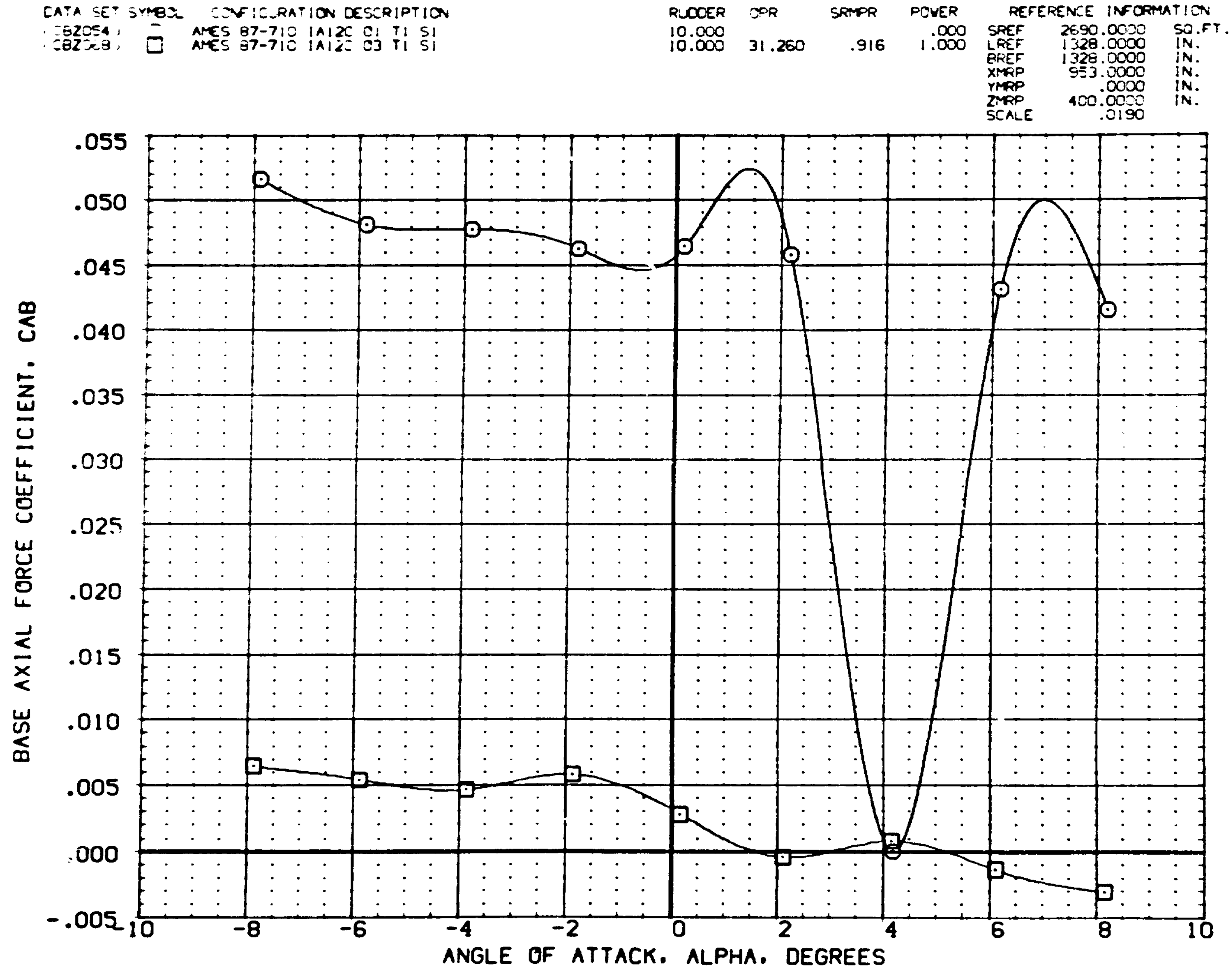
PLUME AND RUDDER DEFLECTION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 2.50

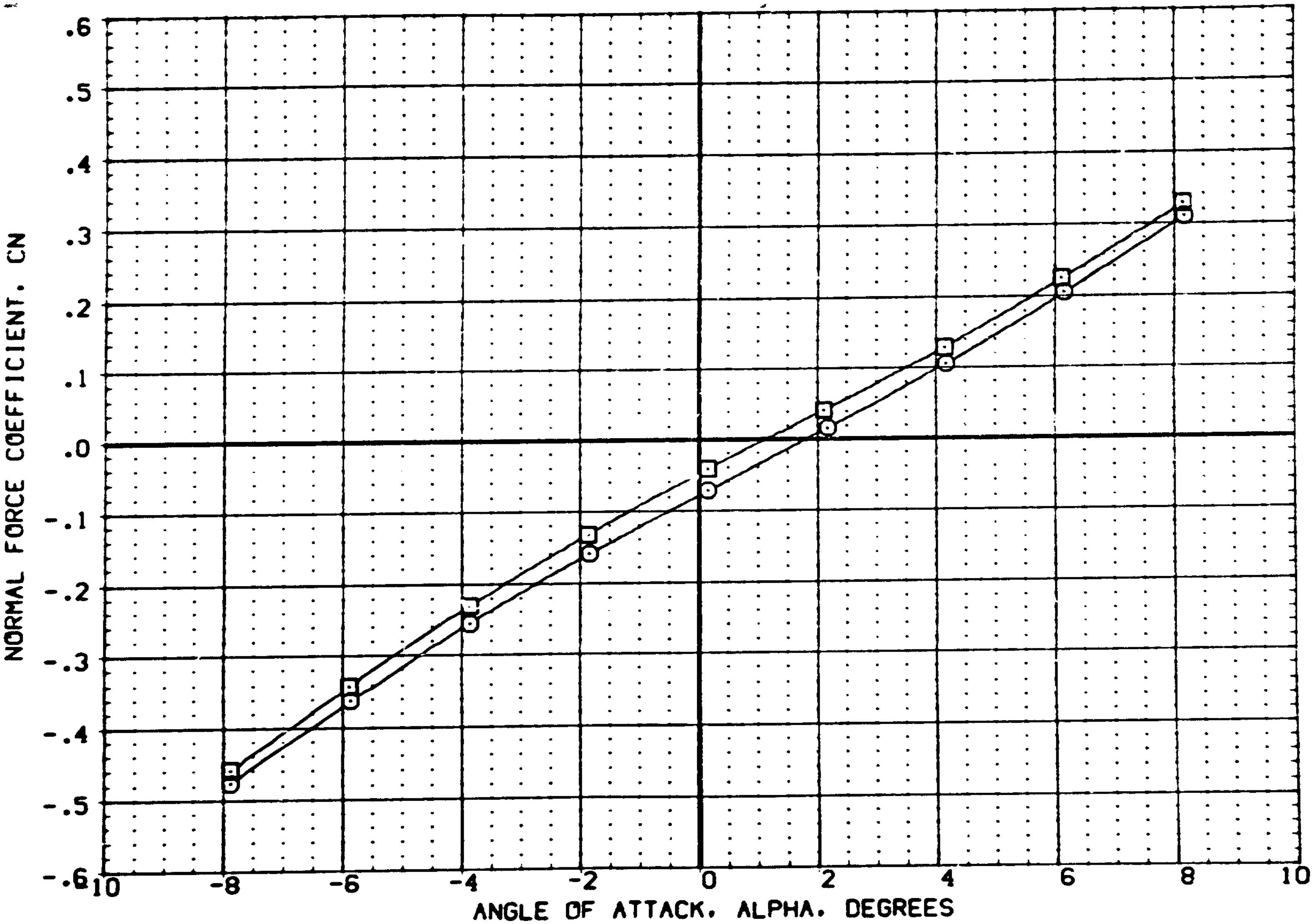


ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ054)	⊙	AMES 87-710 IA12C 01 T1 S1	10.000			.000
(CBZ068)	□	AMES 87-710 IA12C 03 T1 S1	10.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

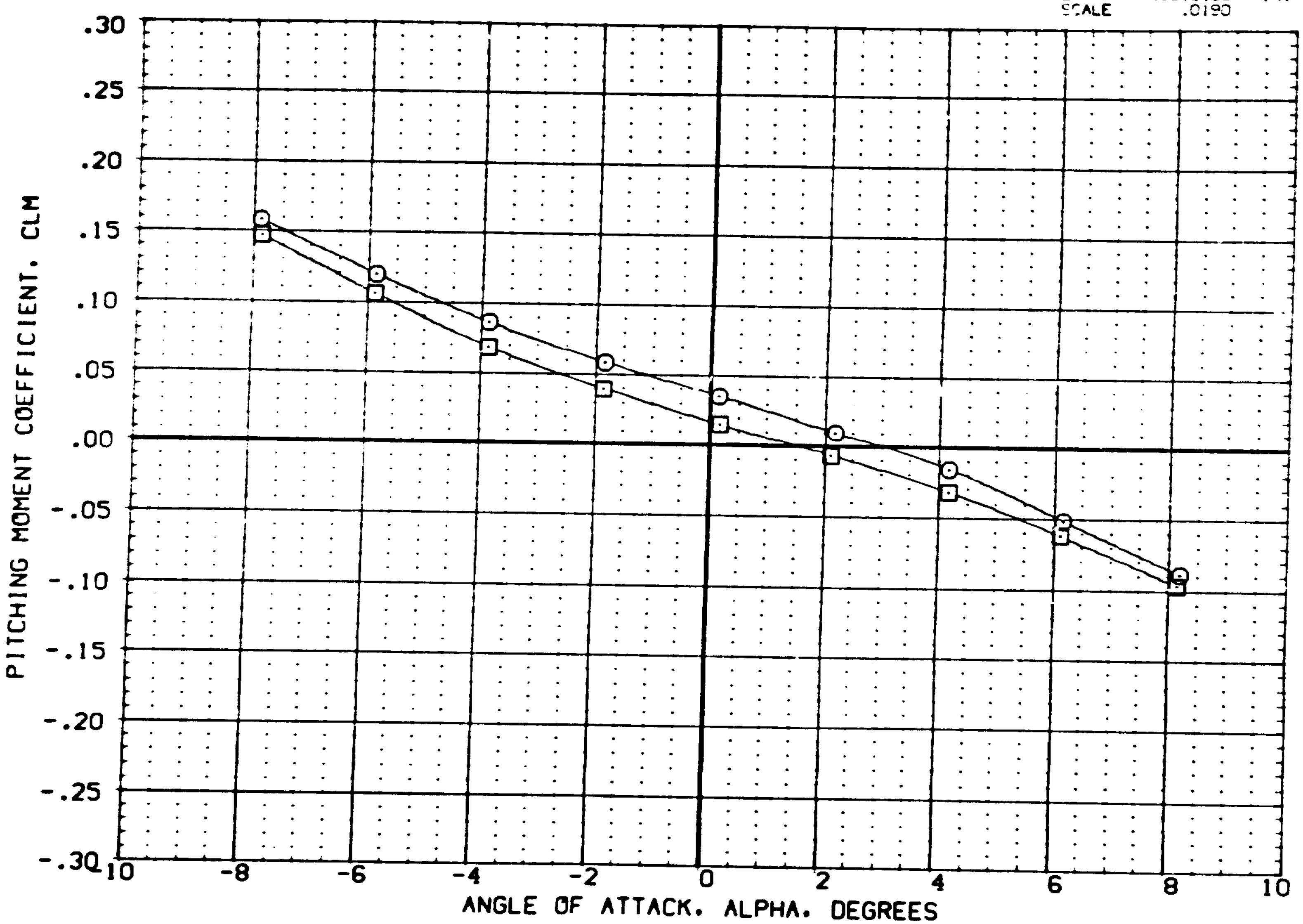
(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ054)	○	AMES 87-710 IA120 01 T1 S1
(BZ068)	□	AMES 87-710 IA120 03 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	31.260	.916	1.000

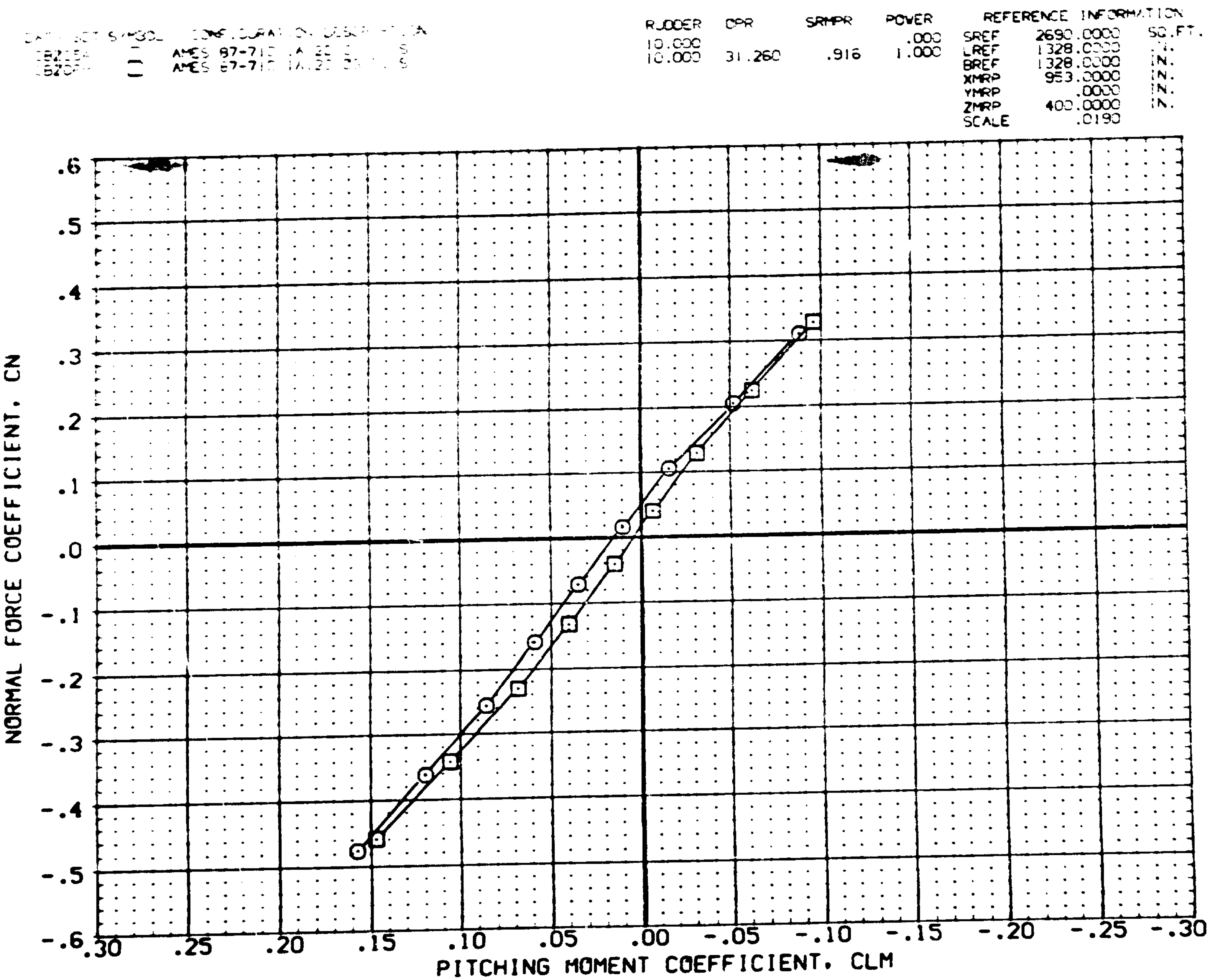
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 2.50



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

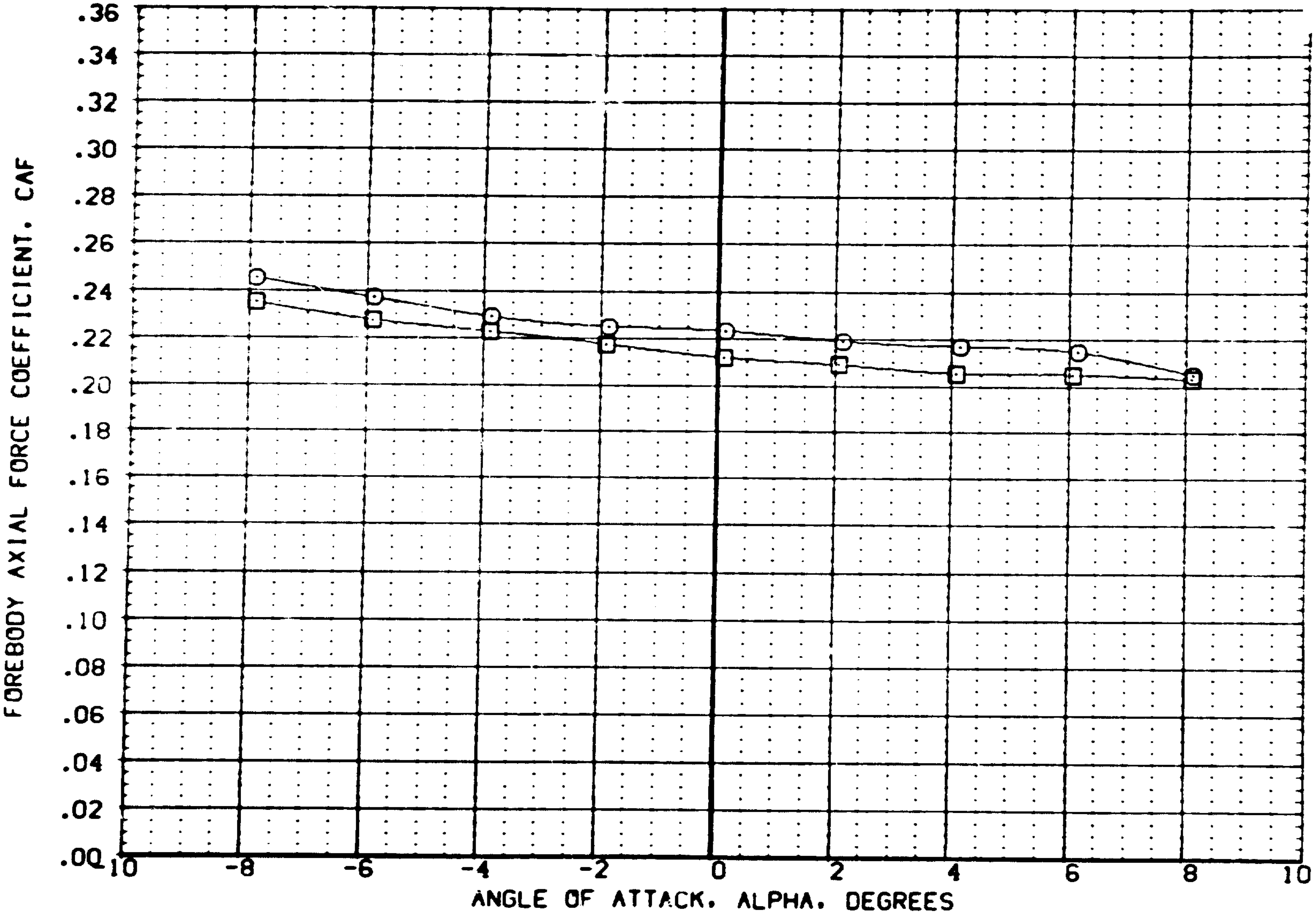
(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
RBZ059	○	AMES 87-710 (A)20 01 T1 S1
RBZ169	□	AMES 87-710 (A)20 03 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



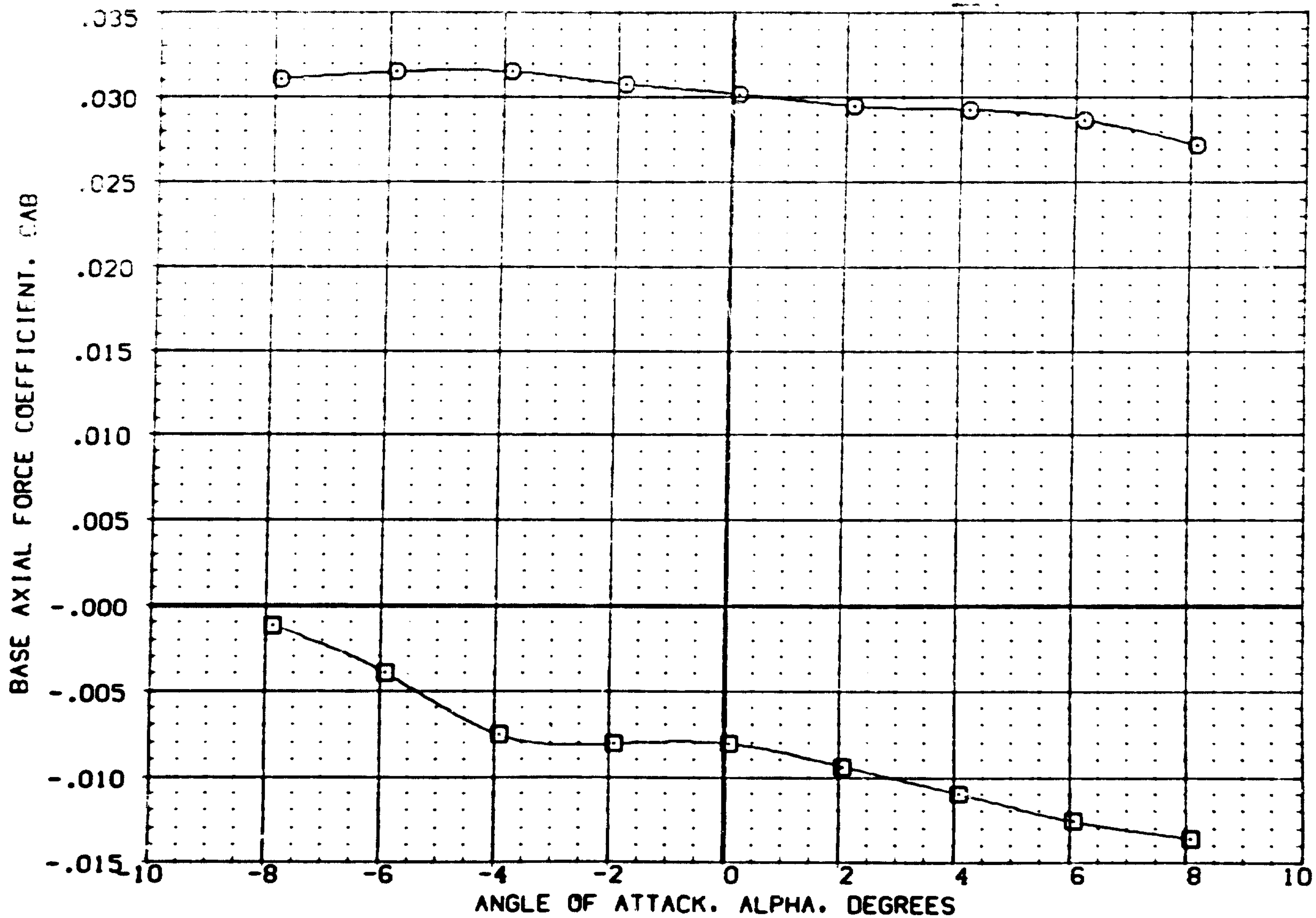
ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.00

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	CPR	SRMPR	POWER
		10.000			.000
		10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

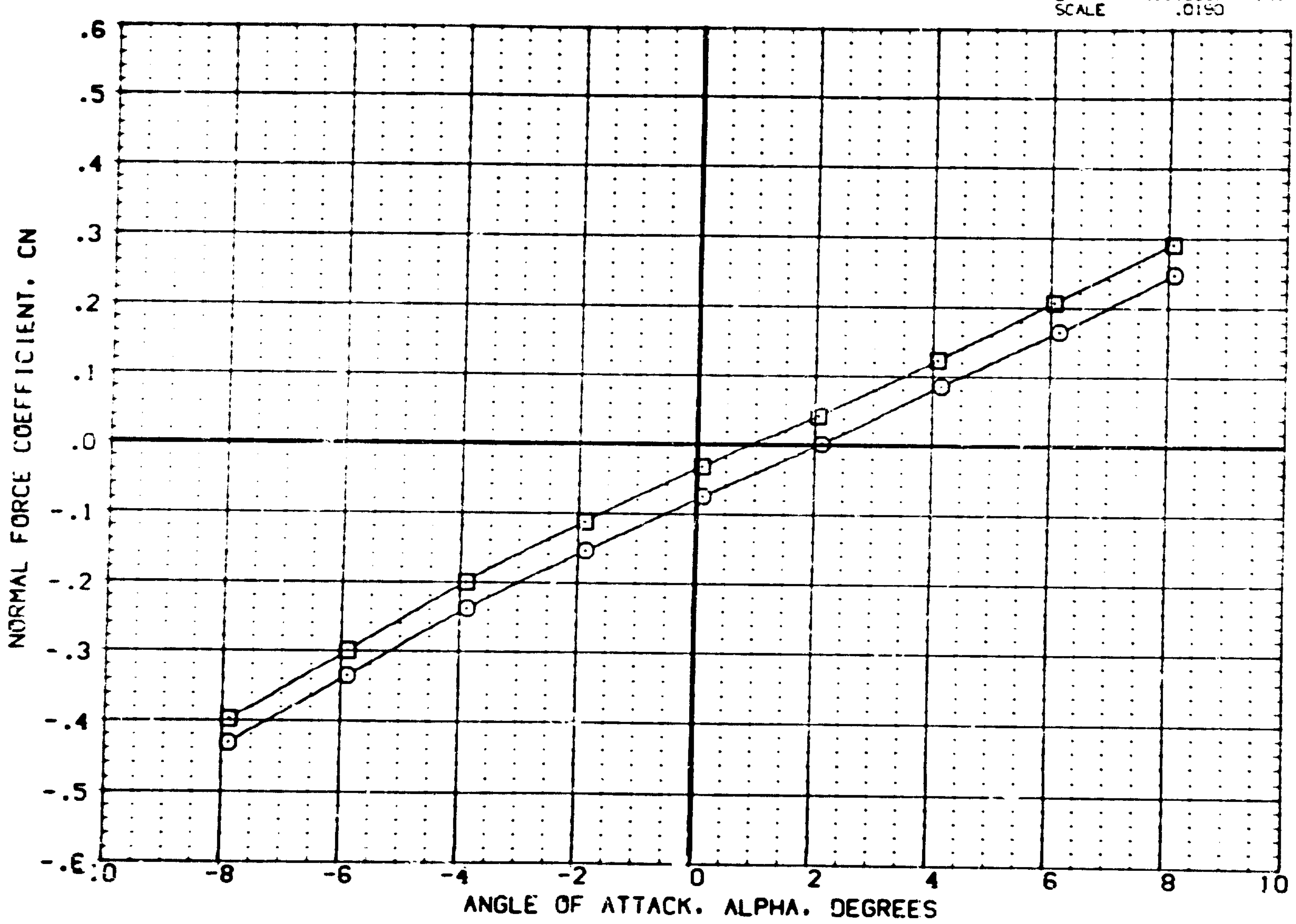
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
LBZ059	○	AMES 87-710 IA12C 01 T1 S1
LEZ069	□	AMES 87-710 IA12C 03 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	26.860	.768	1.000

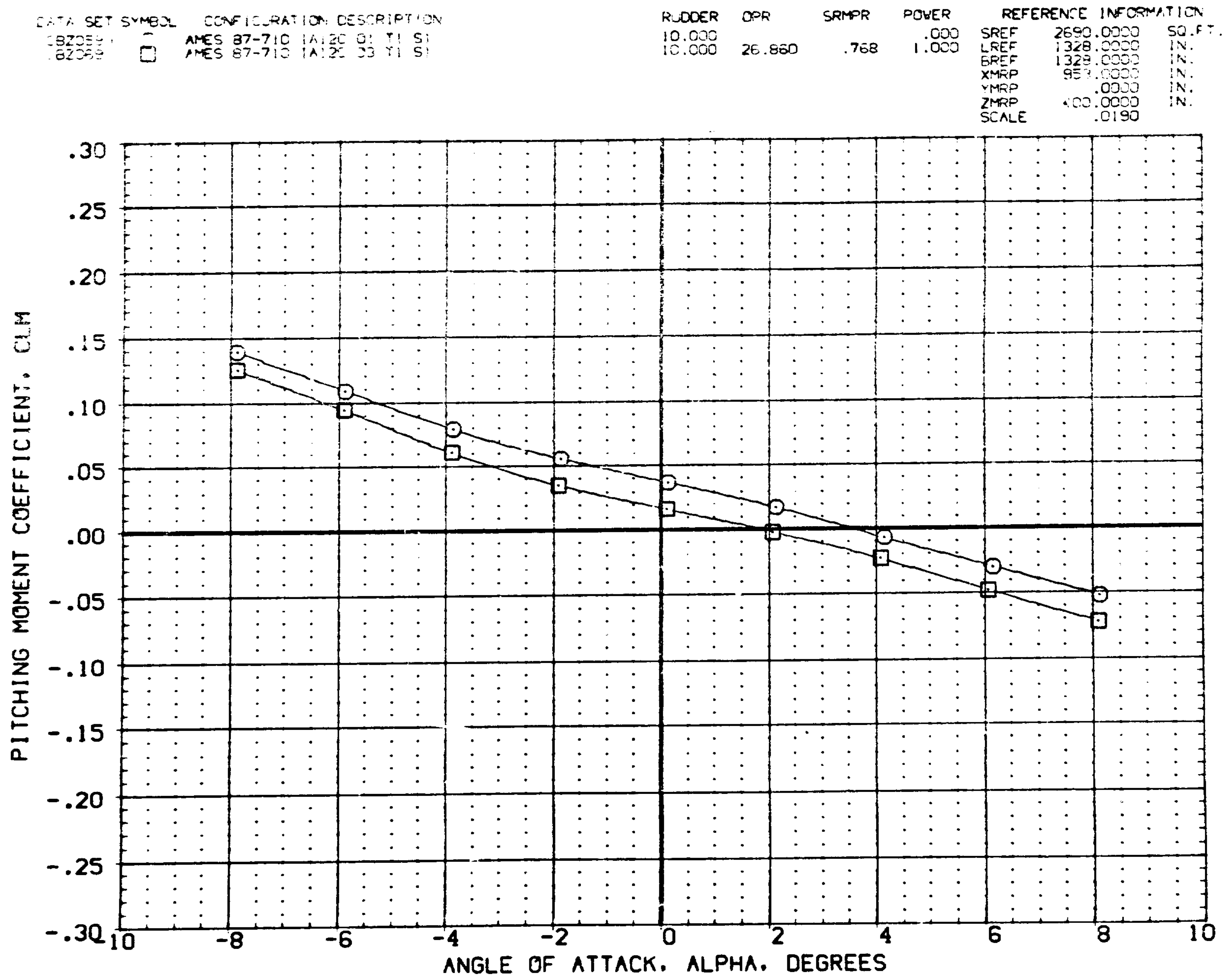
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0150	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.00



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

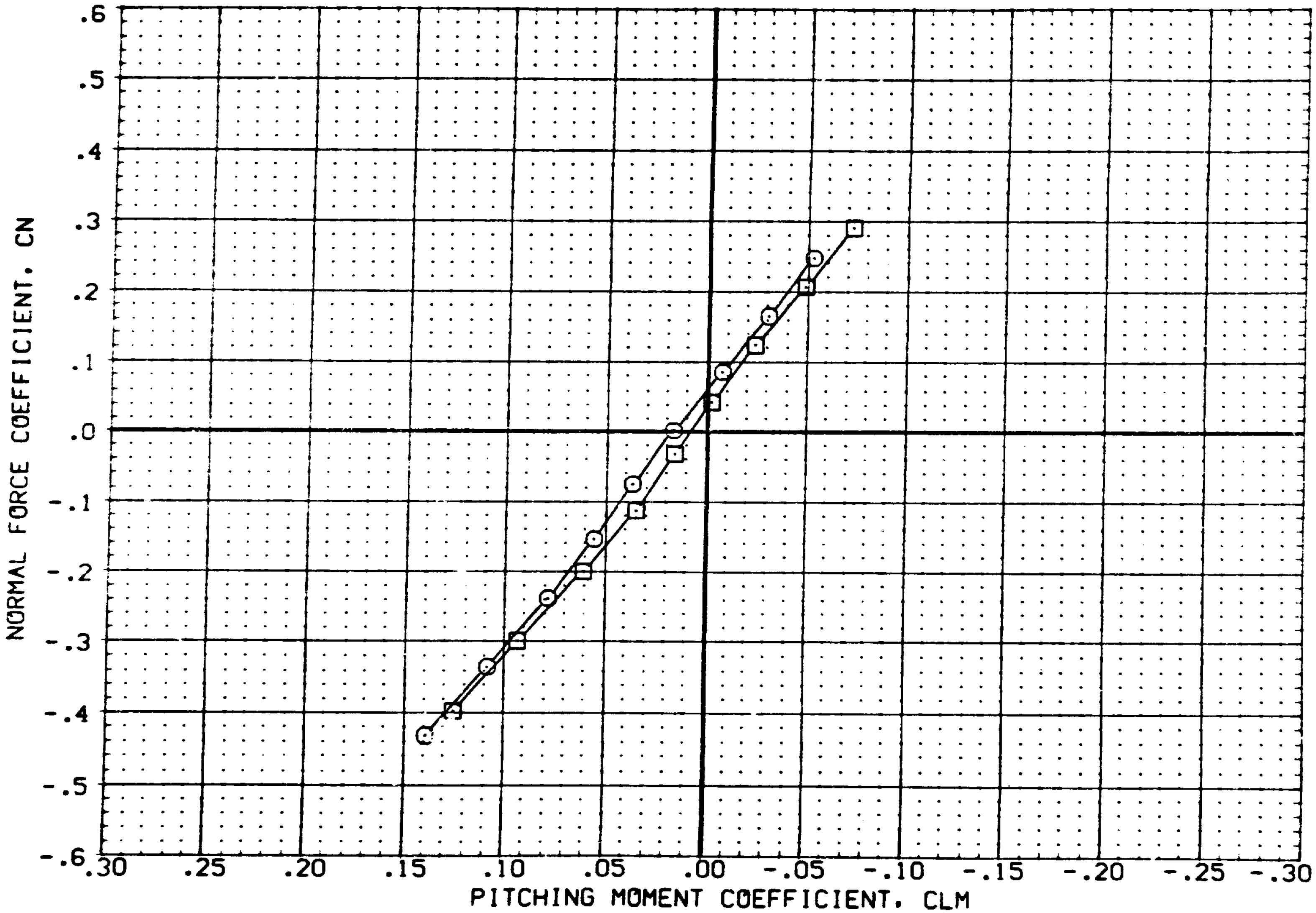
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ059)	—	AMES 87-710 IA12C 01 T1 S1
(BZ069)	□	AMES 87-710 IA12C 03 T1 S1

RUDDER	OPR	SRMFR	POWER
10.000			.000
10.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



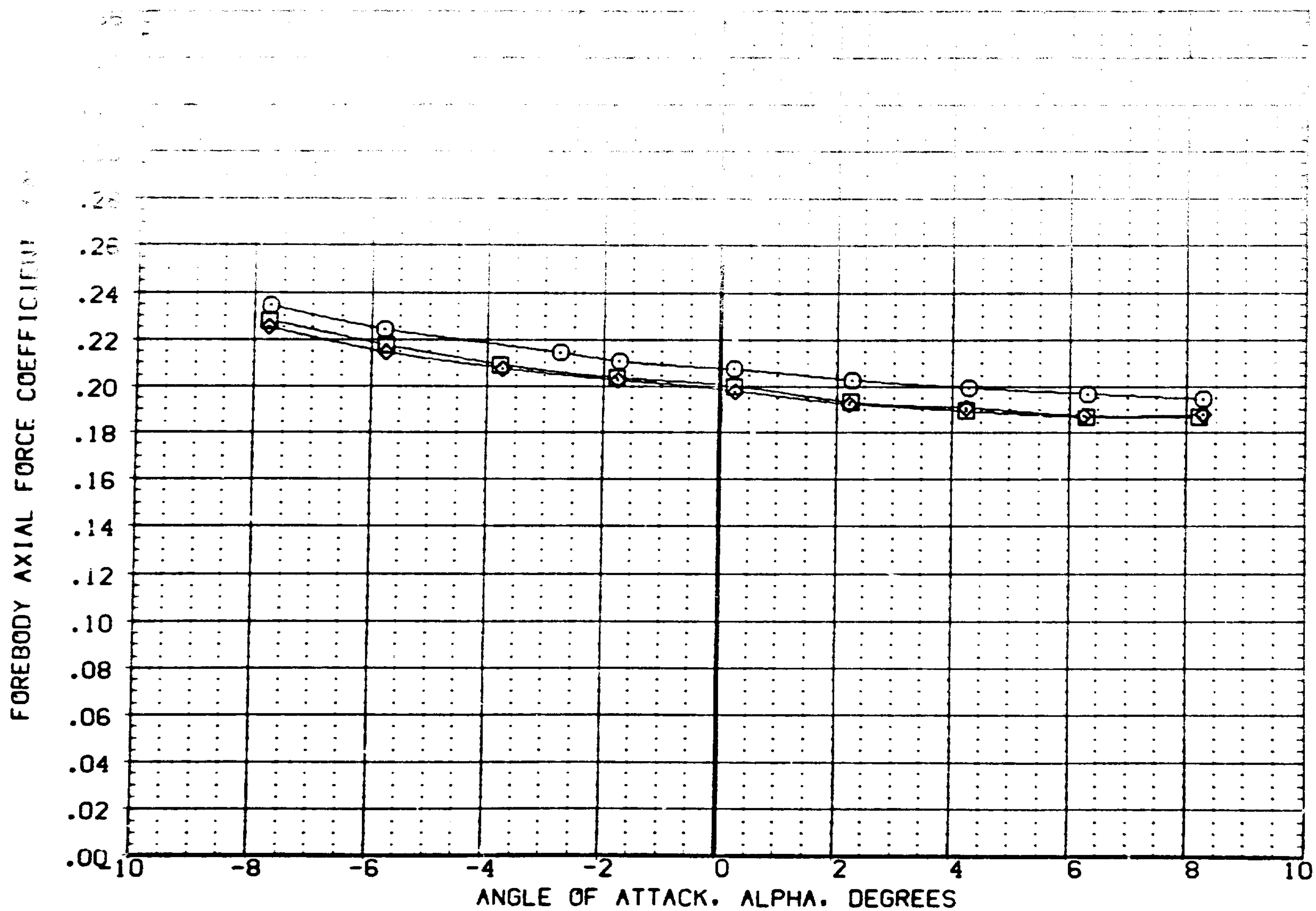
ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
[illegible]	[illegible]	AMES 87-710 IA120 [illegible]	10.000			.000
[illegible]	[illegible]	AMES 87-710 IA120 [illegible]	10.000	20.860	.826	1.000
[illegible]	[illegible]	AMES 87-710 IA120 [illegible]	10.000		.826	2.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

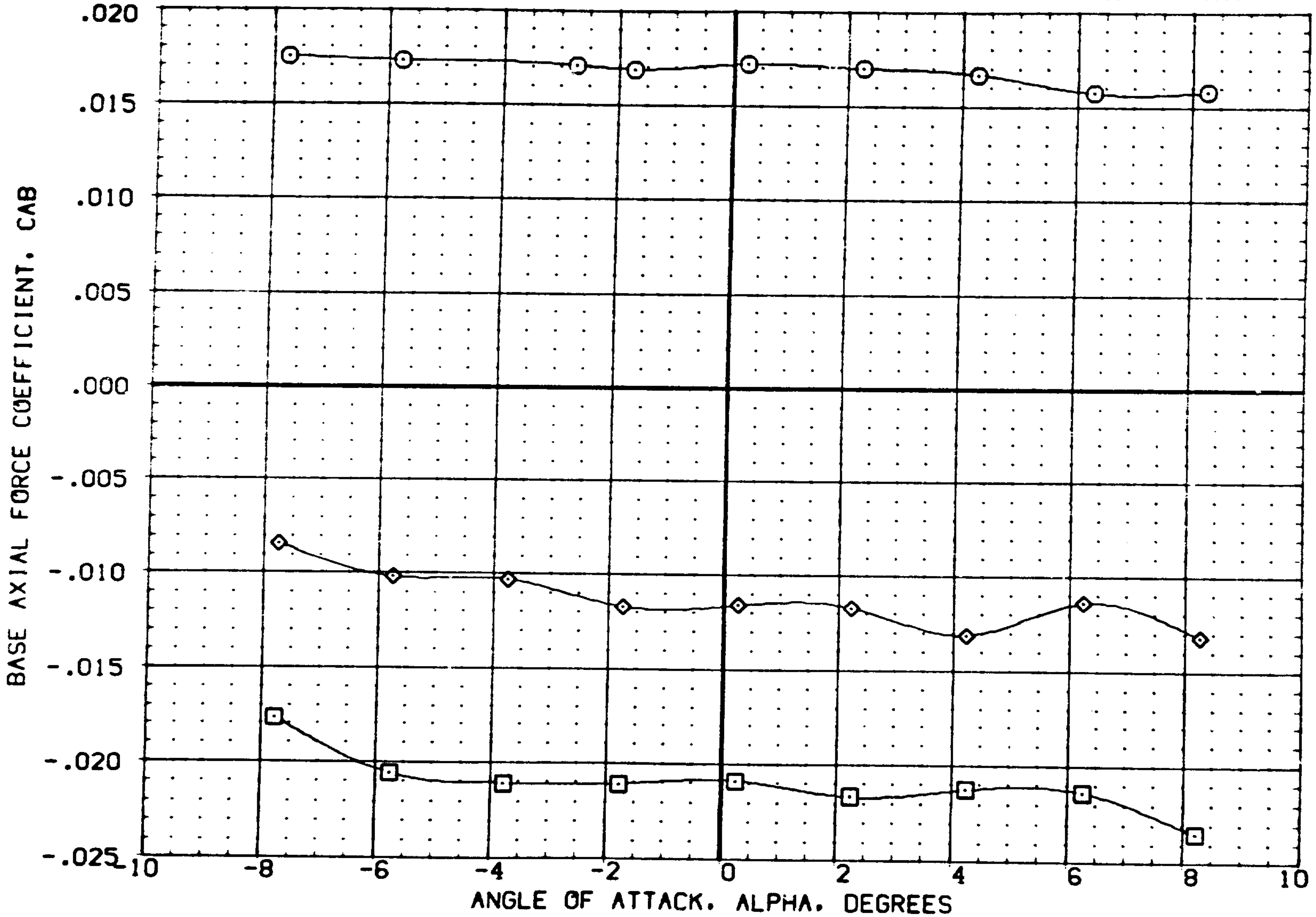
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
CBZ063	○	AMES 87-710 IA120 01 T1 S1
CBZ070	□	AMES 87-710 IA120 03 T1 S1
CBZ071	◇	AMES 87-710 IA120 03 T1 S1

RUDDER	OPR	SRMPR	POWER
10.000			.000
10.000	23.860	.826	1.000
10.000		.826	2.000

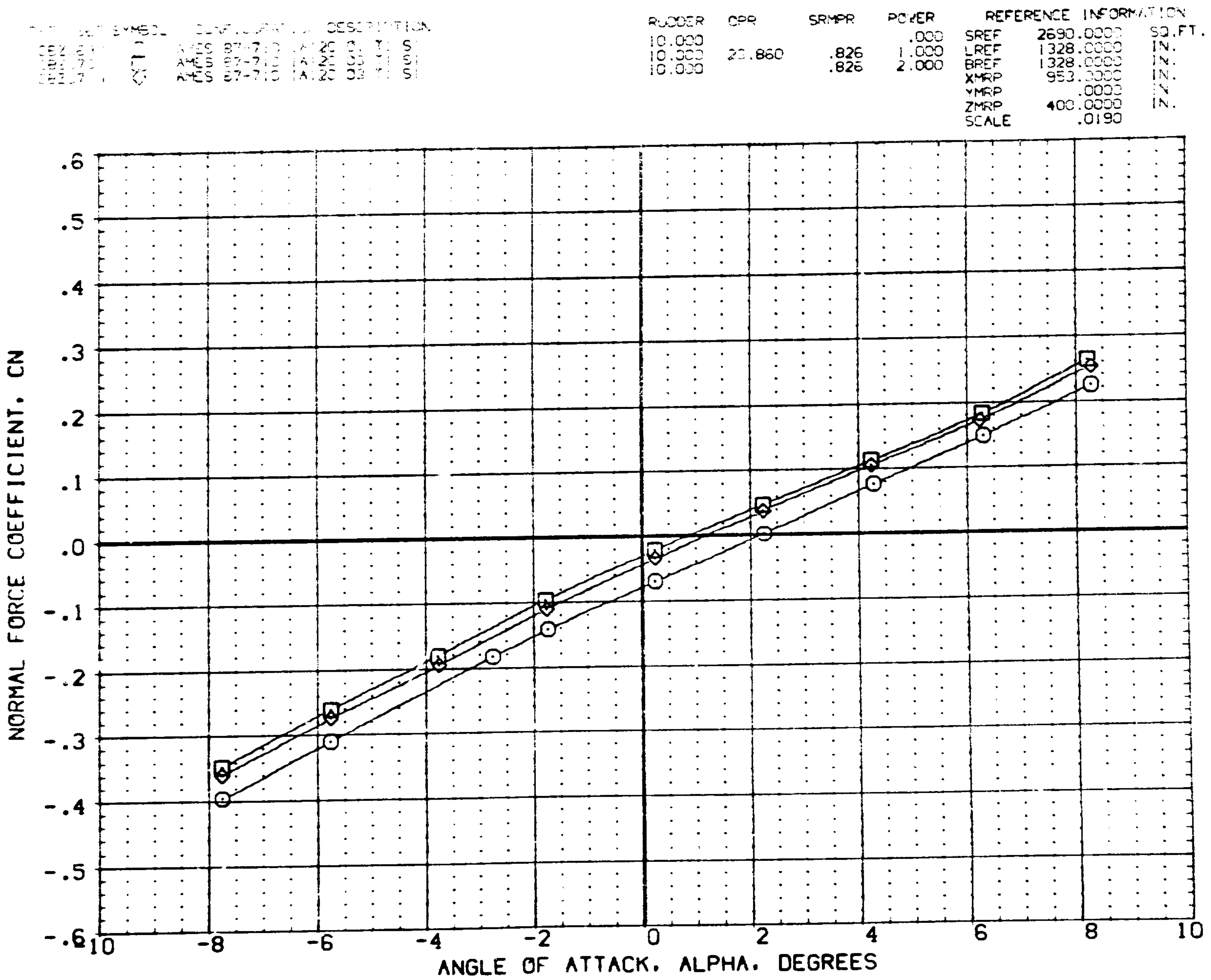
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



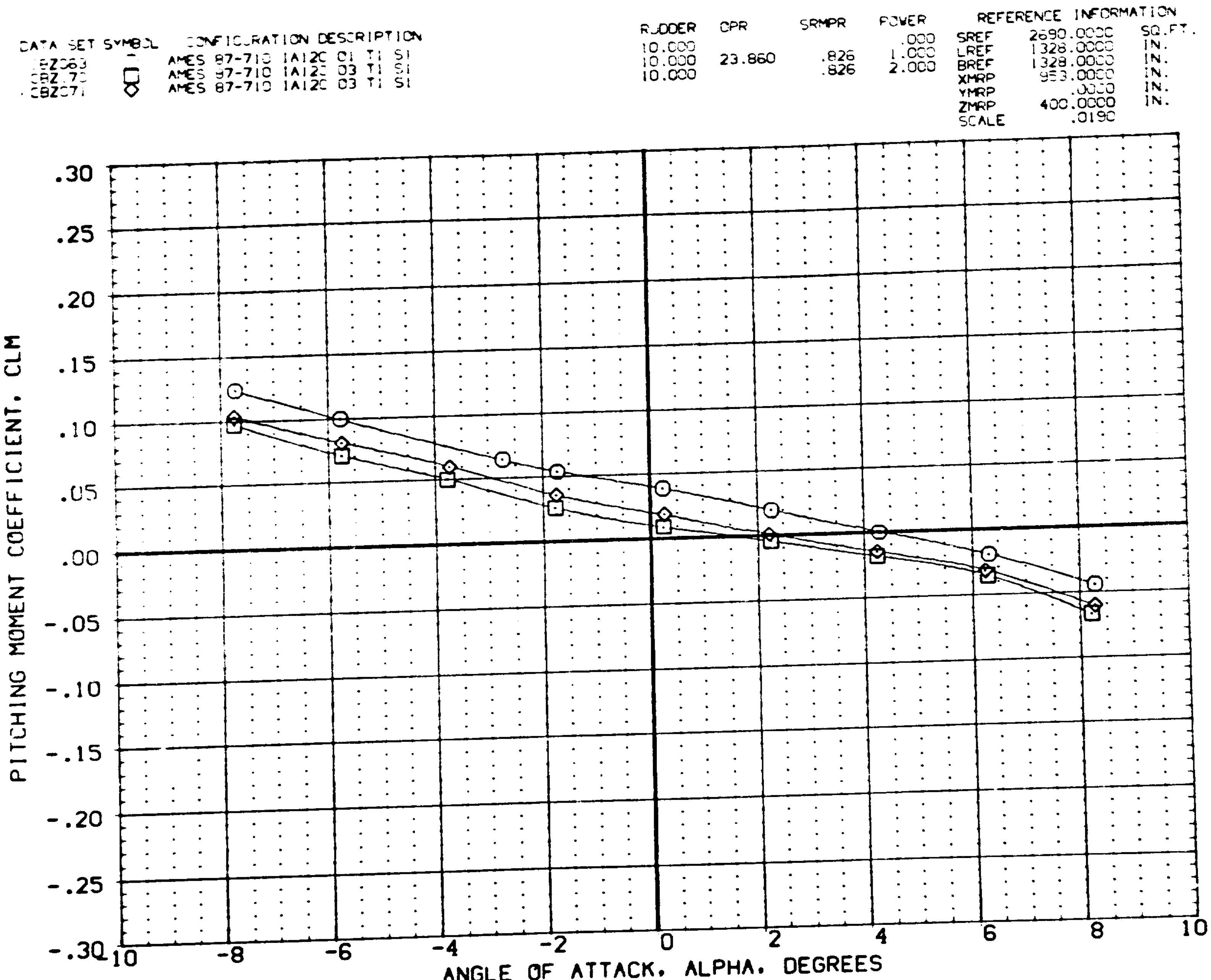
ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.50



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.50

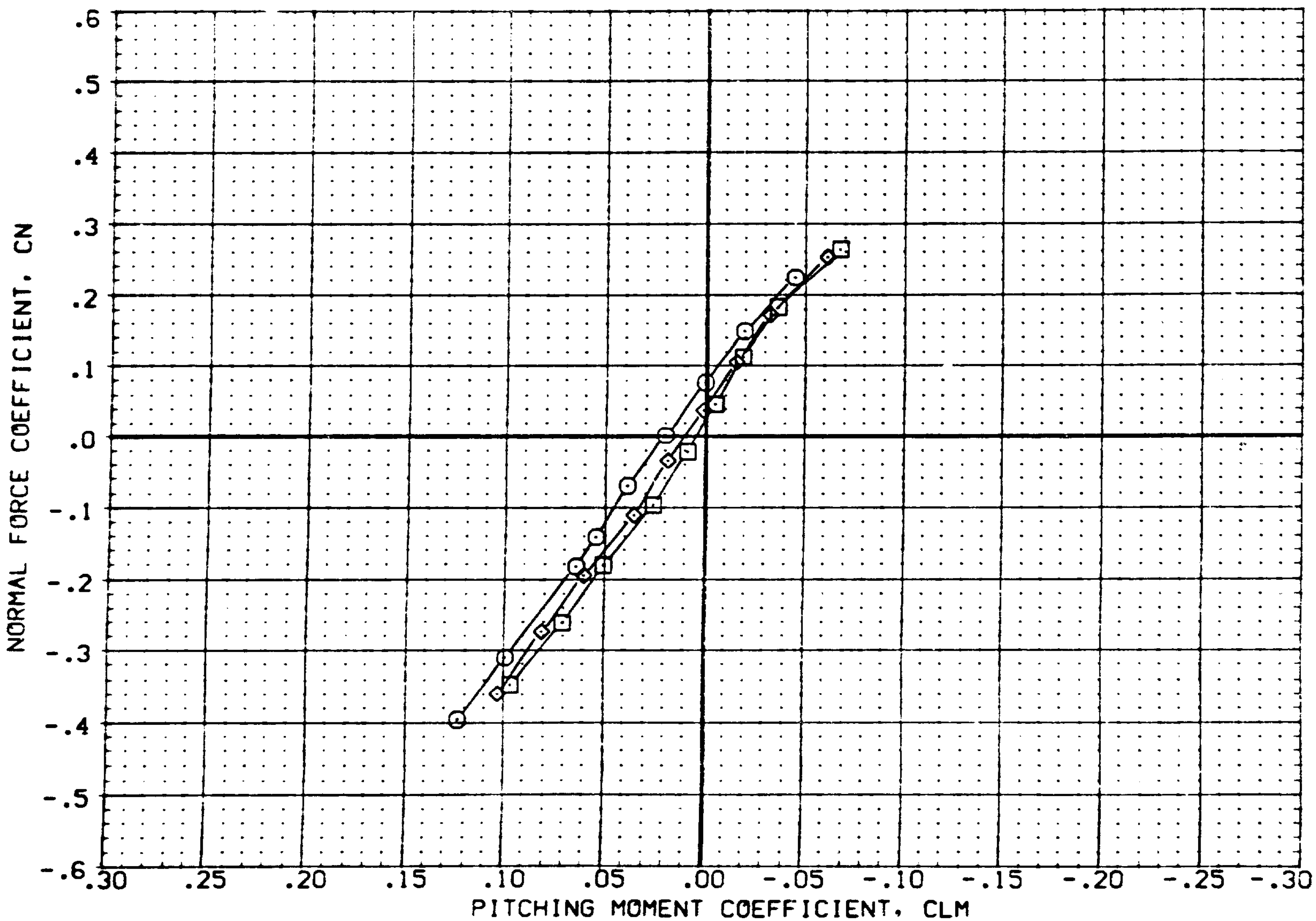


ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

(A)MACH = 3.50

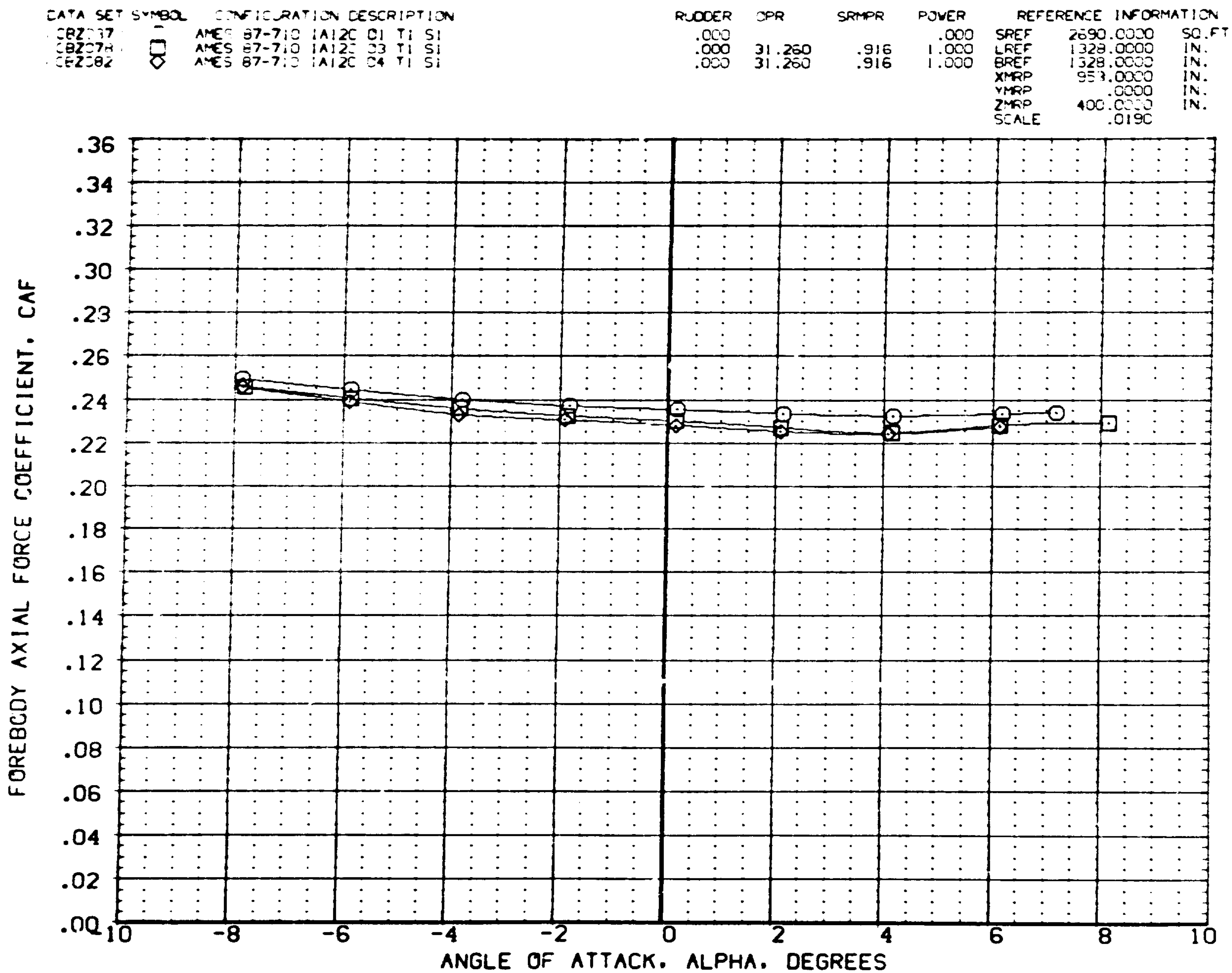
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ163)	⊙	AMES 87-710 (A120 O3 T1 S1)	10.000			.000
(BZ071)	⊡	AMES 87-710 (A120 O3 T1 S1)	10.000	23.860	.826	1.000
(BZ071)	◇	AMES 87-710 (A120 O3 T1 S1)	10.000		.826	2.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT AND RUDDER DEFLECTION EFFECTS ON LONG. CHAR.

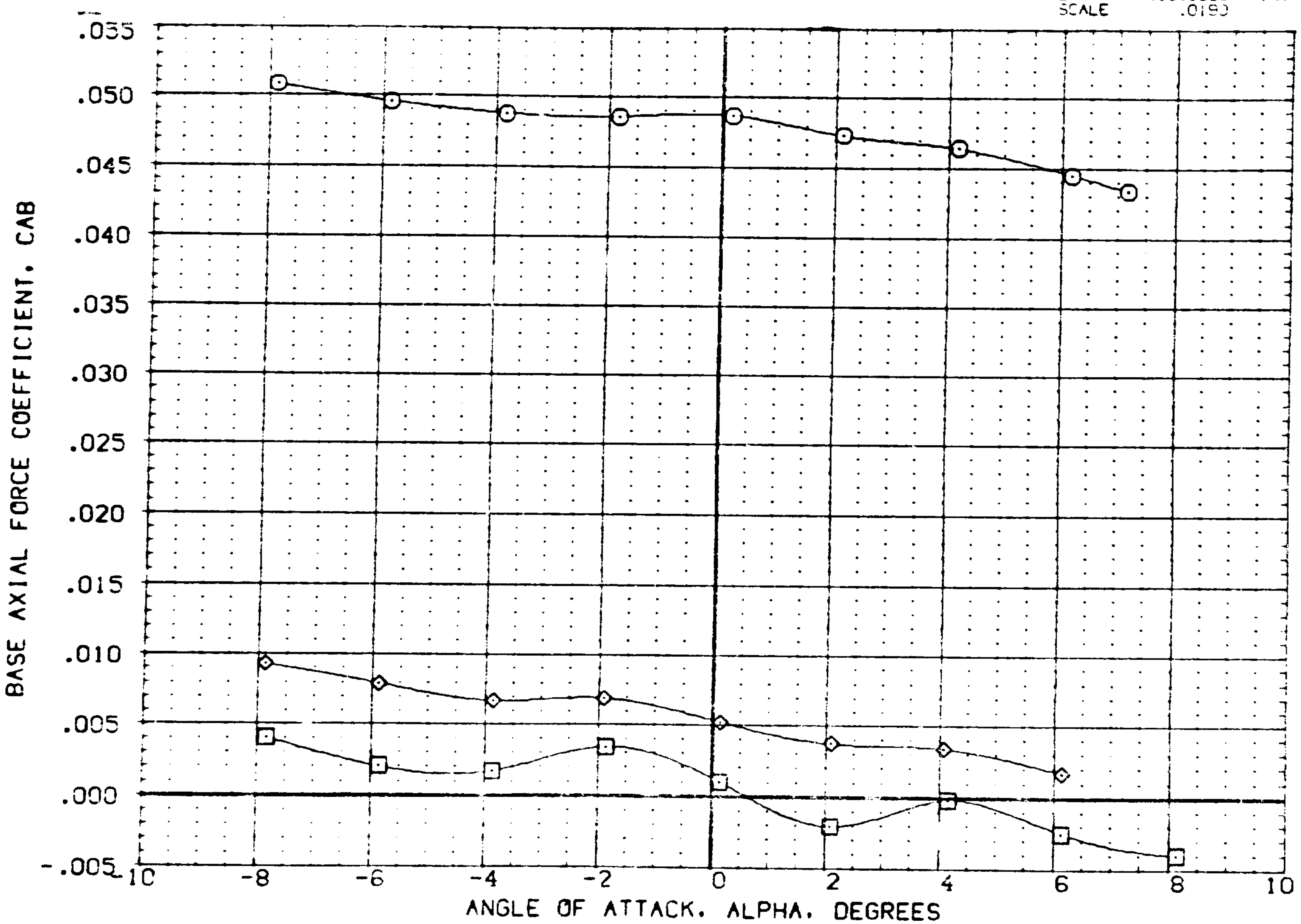
(A)MACH = 3.50



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

RUDDER	OPR	SRMPR	POWER	REFERENCE INFORMATION		
.000			.000	SREF	2690.0000	SQ.FT.
.000	31.260	.916	1.000	LREF	1328.0000	IN.
.000	31.260	.916	1.000	BREF	1328.0000	IN.
				XMRP	953.0000	IN.
				YMRP	.0000	IN.
				ZMRP	400.0000	IN.
				SCALE	.0190	



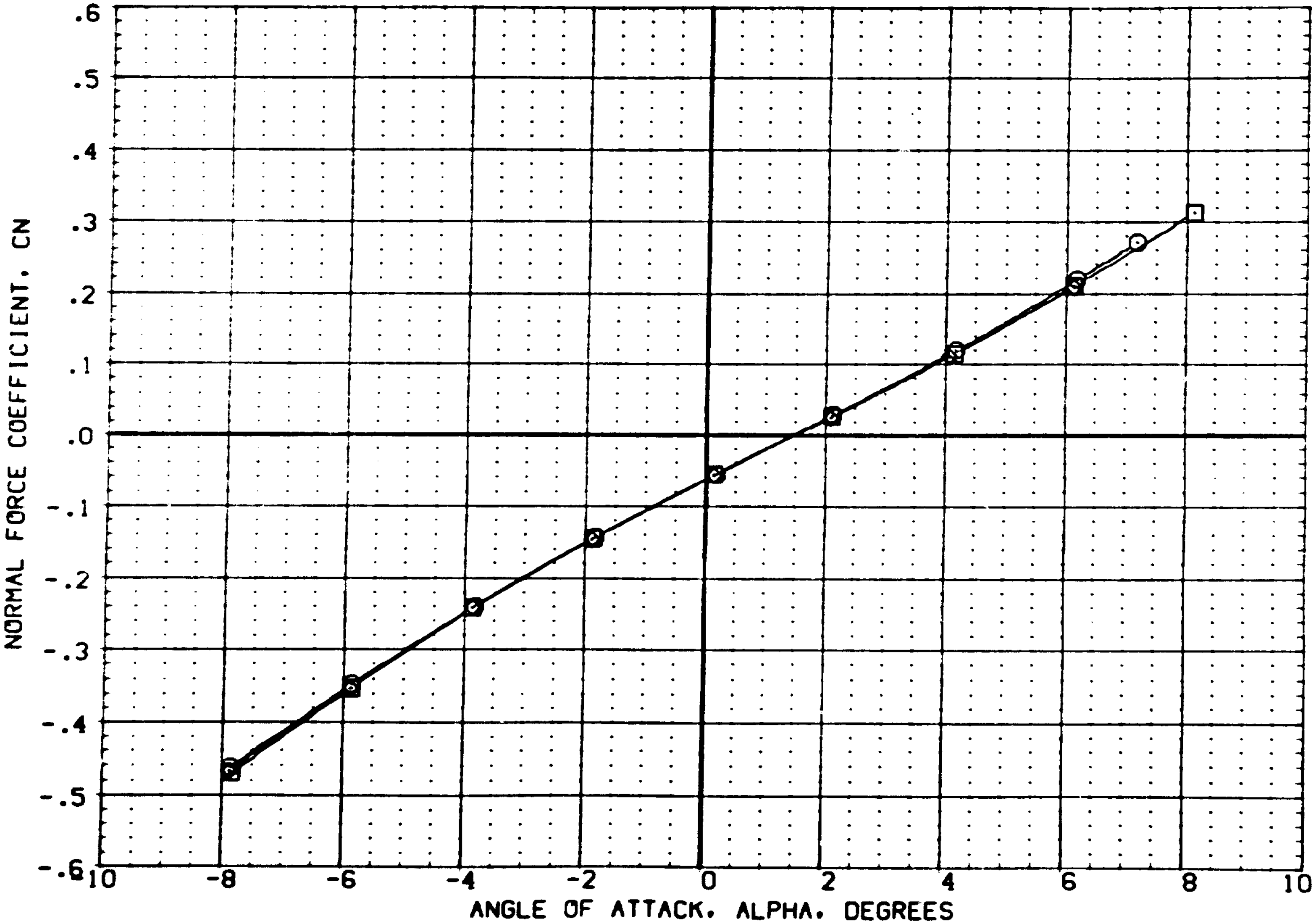
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ037	—	AMES 87-710 IA12C 01 T1 S1	.000			.000
CBZ074	□	AMES 87-710 IA12C 03 T1 S1	.000	31.260	.916	1.000
CBZ082	◇	AMES 87-710 IA12C 04 T1 S1	.000	31.260	.916	1.000

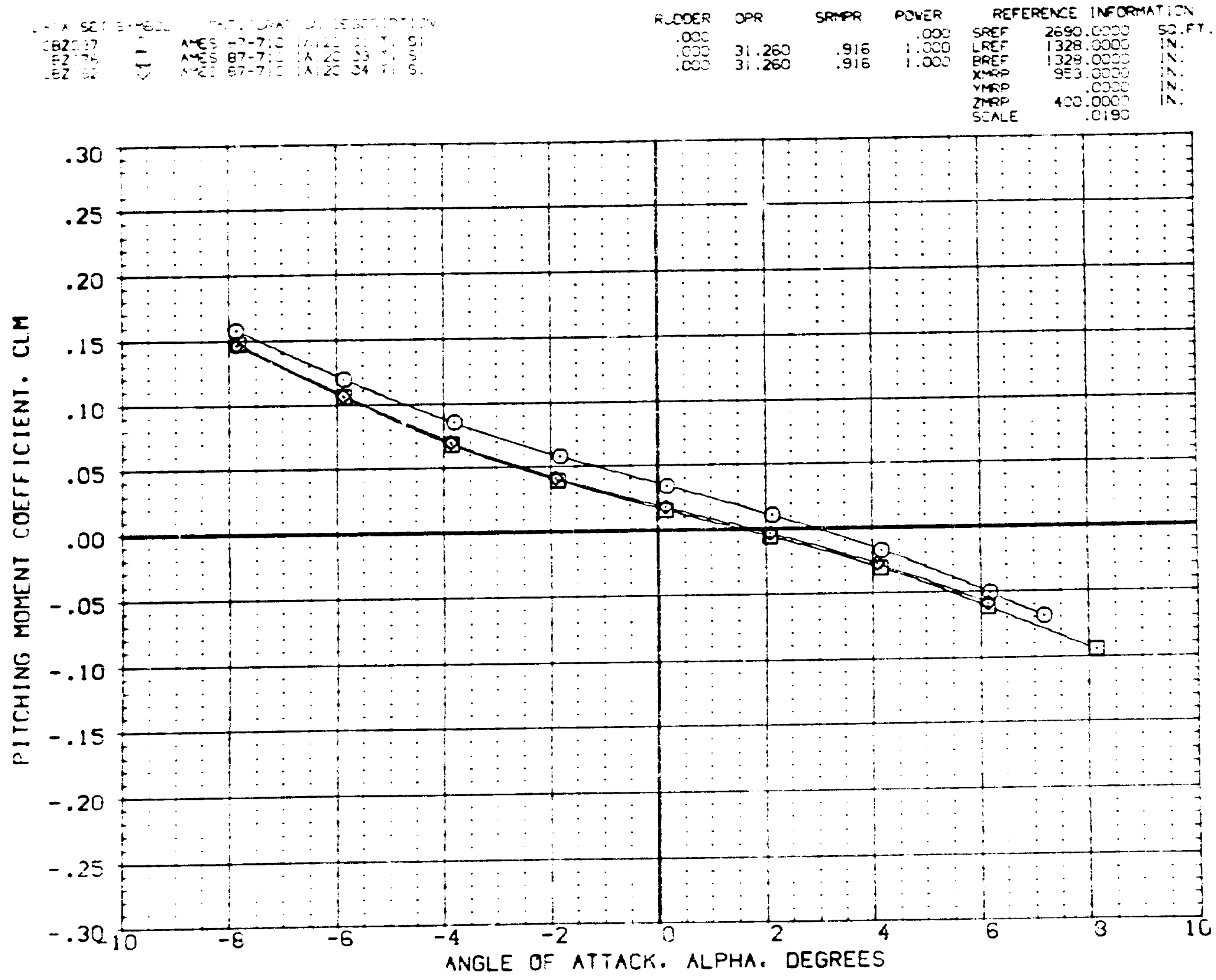
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



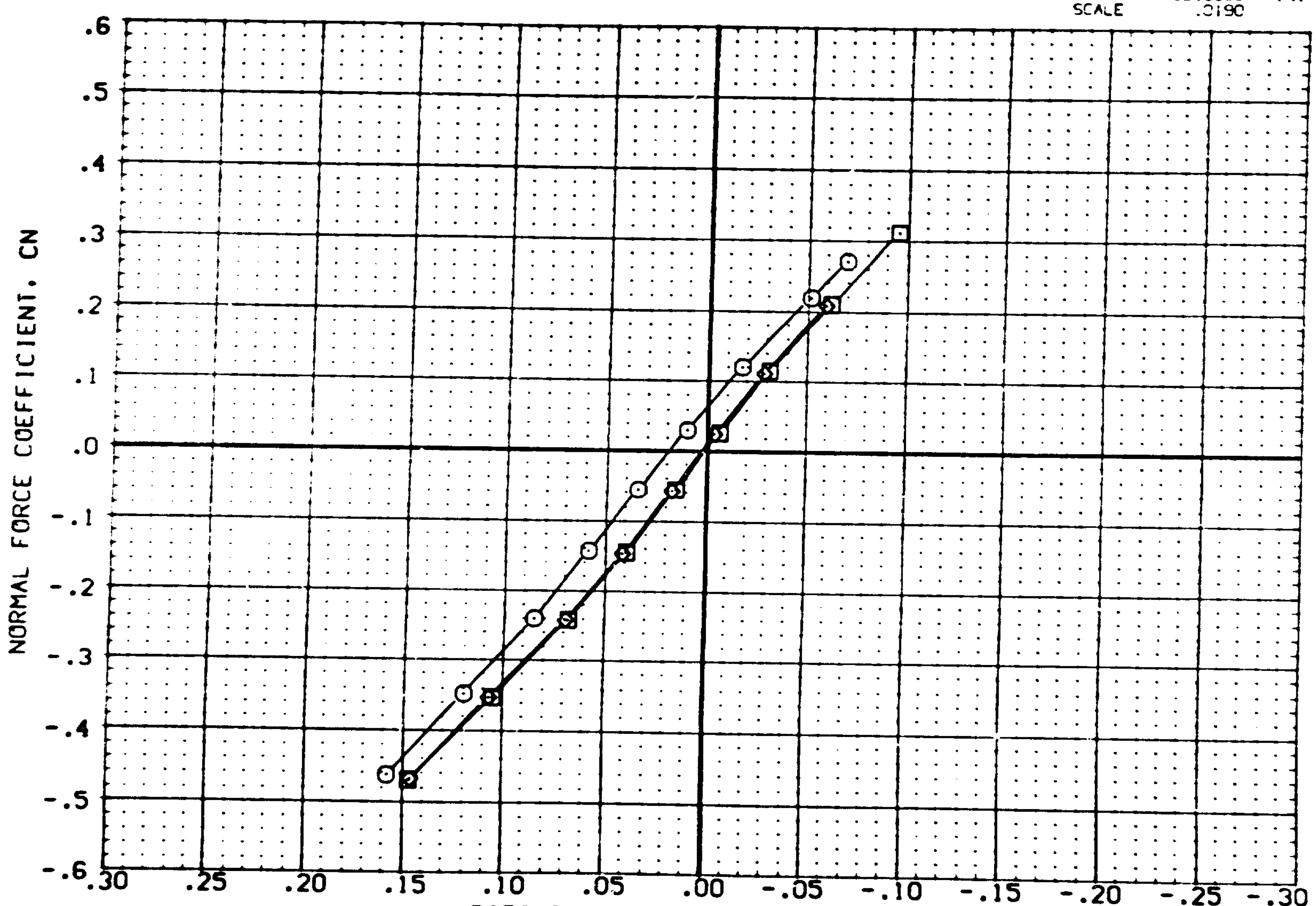
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ037	( )	AMES 87-710 IA12C 01 T1 S1	.000			.000
CBZ078	[ ]	AMES 87-710 IA12C 03 T1 S1	.000	31.260	.916	1.000
CBZ082	◇	AMES 87-710 IA12C 04 T1 S1	.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1329.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

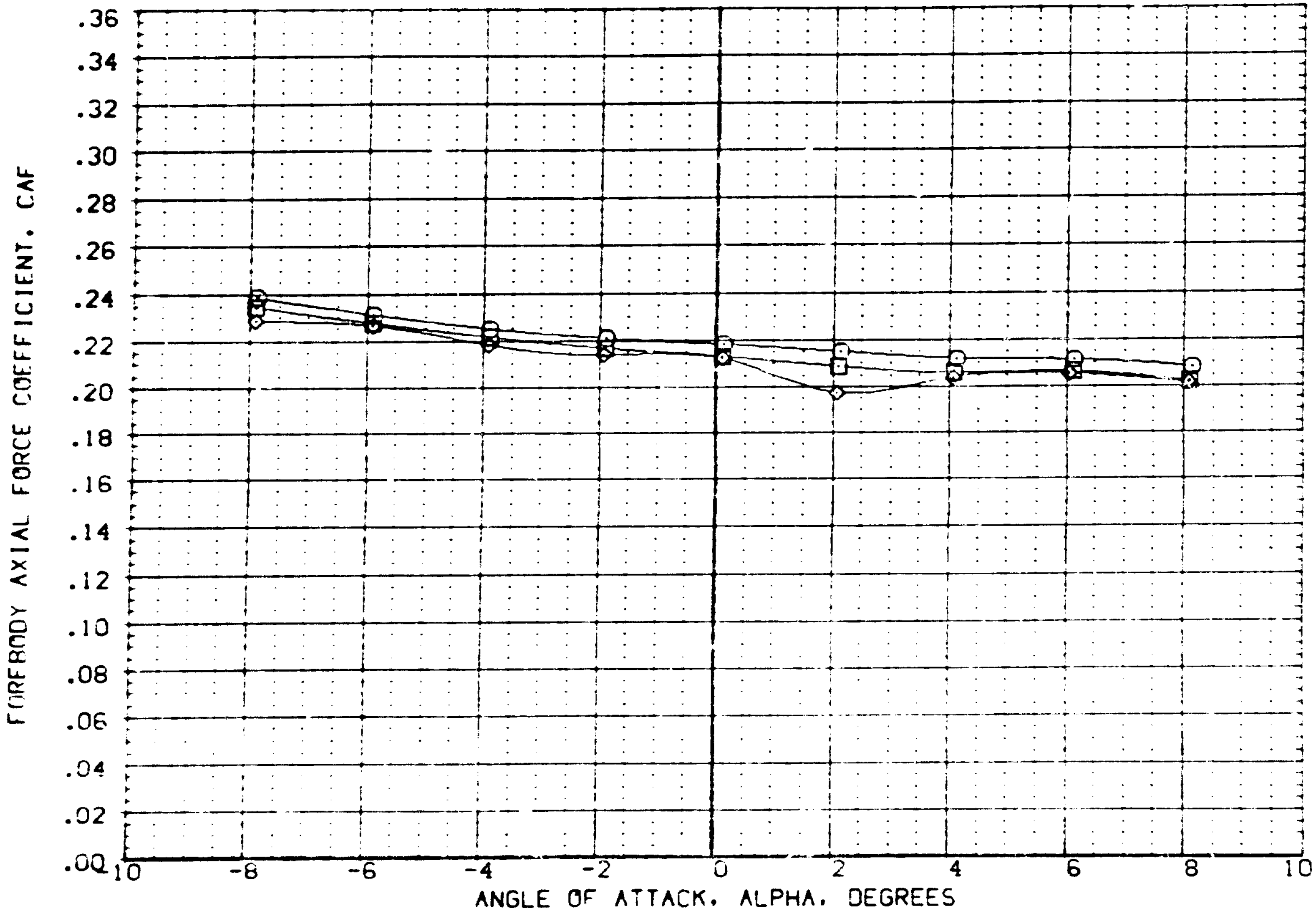


ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(BZ038)	○	AMES 87-710 (A)20 01 T1 S)	.000			.000
(BZ079)	□	AMES 87-710 (A)20 03 T1 S)	.000	26.860	.768	1.000
(BZ083)	◇	AMES 87-710 (A)20 04 T1 S)	.000	26.860	.768	1.000

REFERENCE	INFORMATION	
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



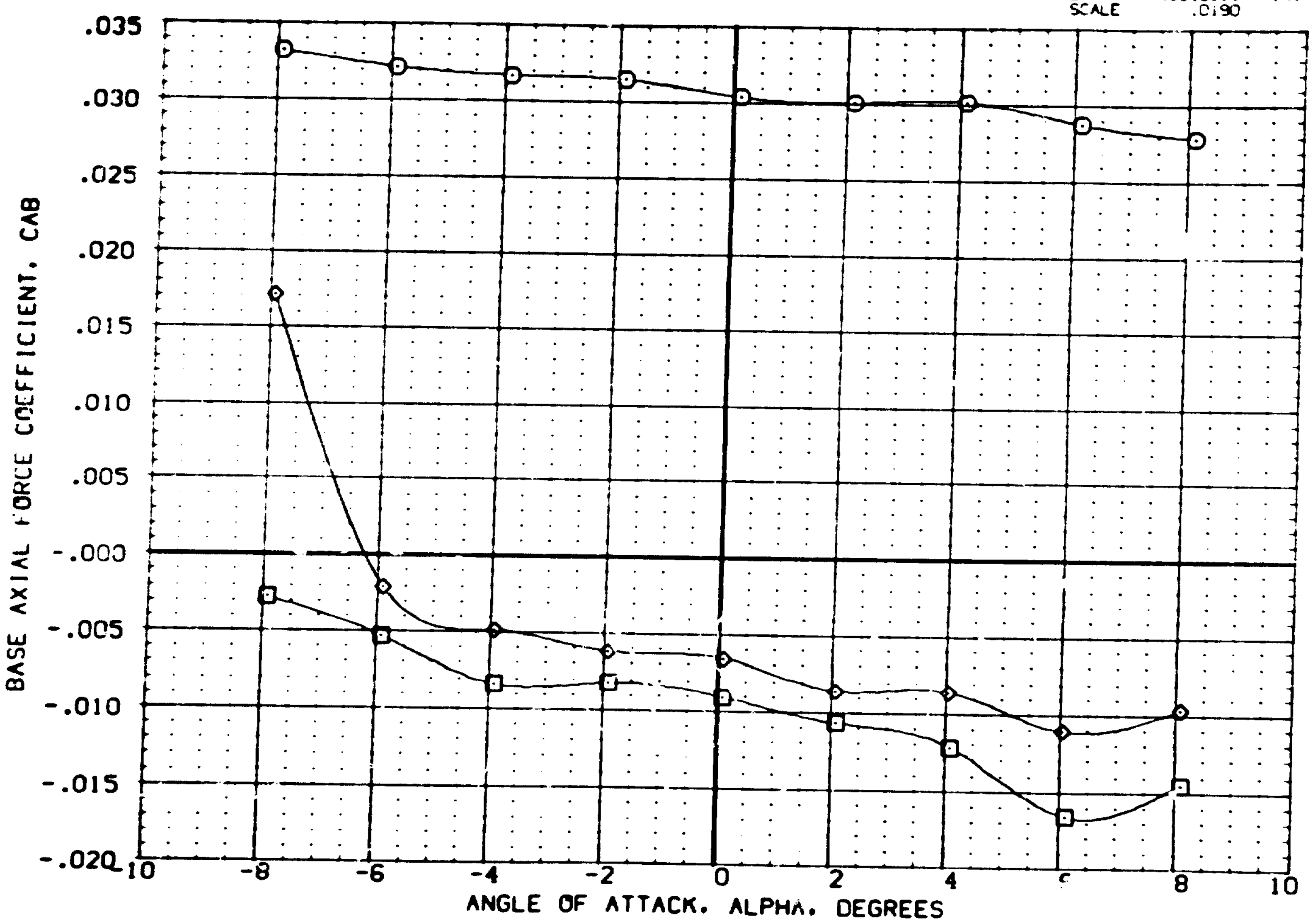
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BZC38	⊙	AMES 87-710 (A12C 01 T1 S1)
CBZC79	□	AMES 87-710 (A12C 03 T1 S1)
CBZC83	◇	AMES 87-710 (A12C 04 T1 S1)

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000	26.960	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



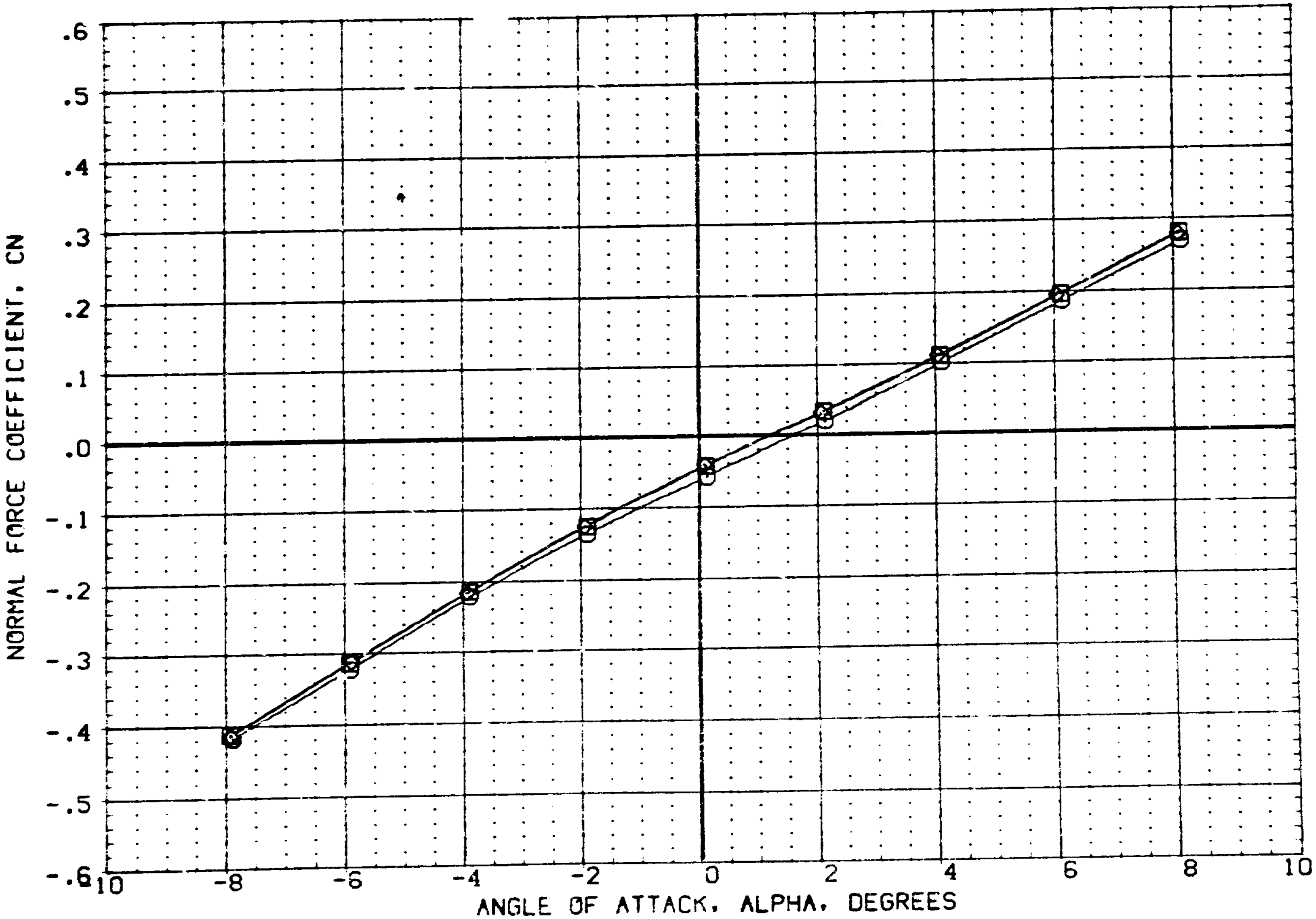
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
CBZ038		AMES 87-710 IA12C 01 T1 S1
CBZ079	☐	AMES 87-710 IA12C 03 T1 S1
CBZ083	◇	AMES 87-710 IA12C 04 T1 S1

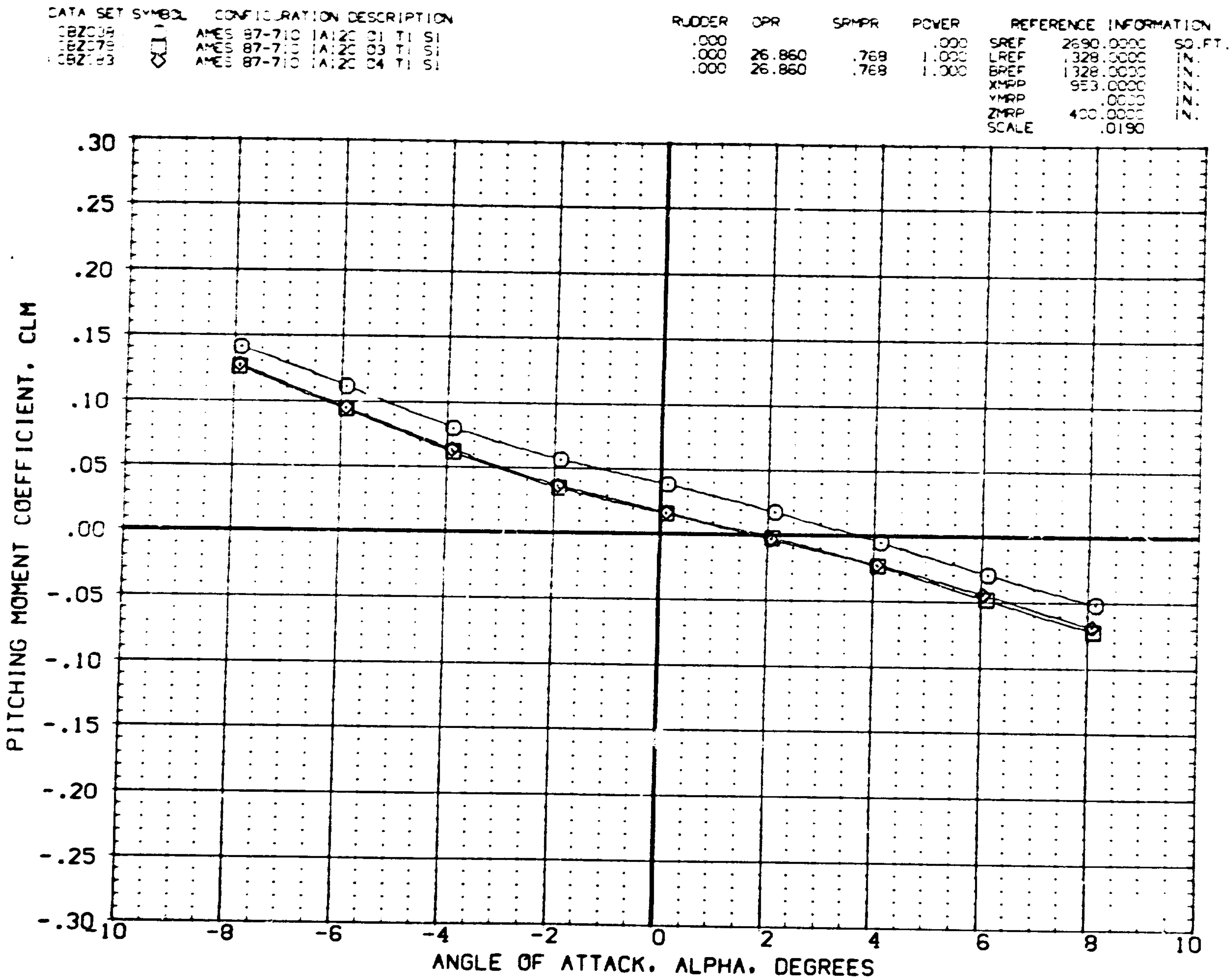
RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

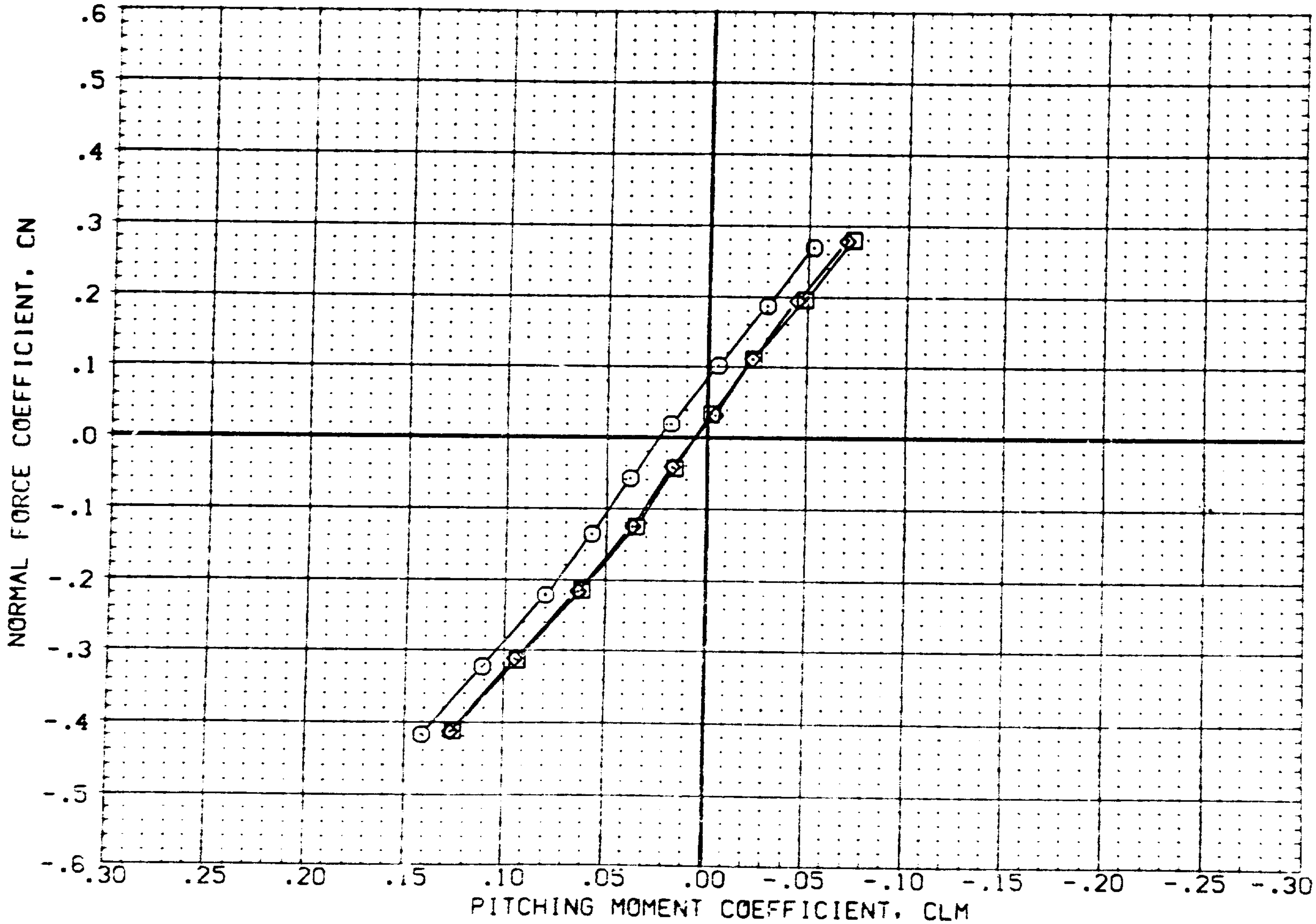
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZC38)	⊙	AMES 87-710 IA12C 01 T1 S1
(BZC79)	☐	AMES 87-710 IA12C 03 T1 S1
(BZC83)	◇	AMES 87-710 IA12C 04 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

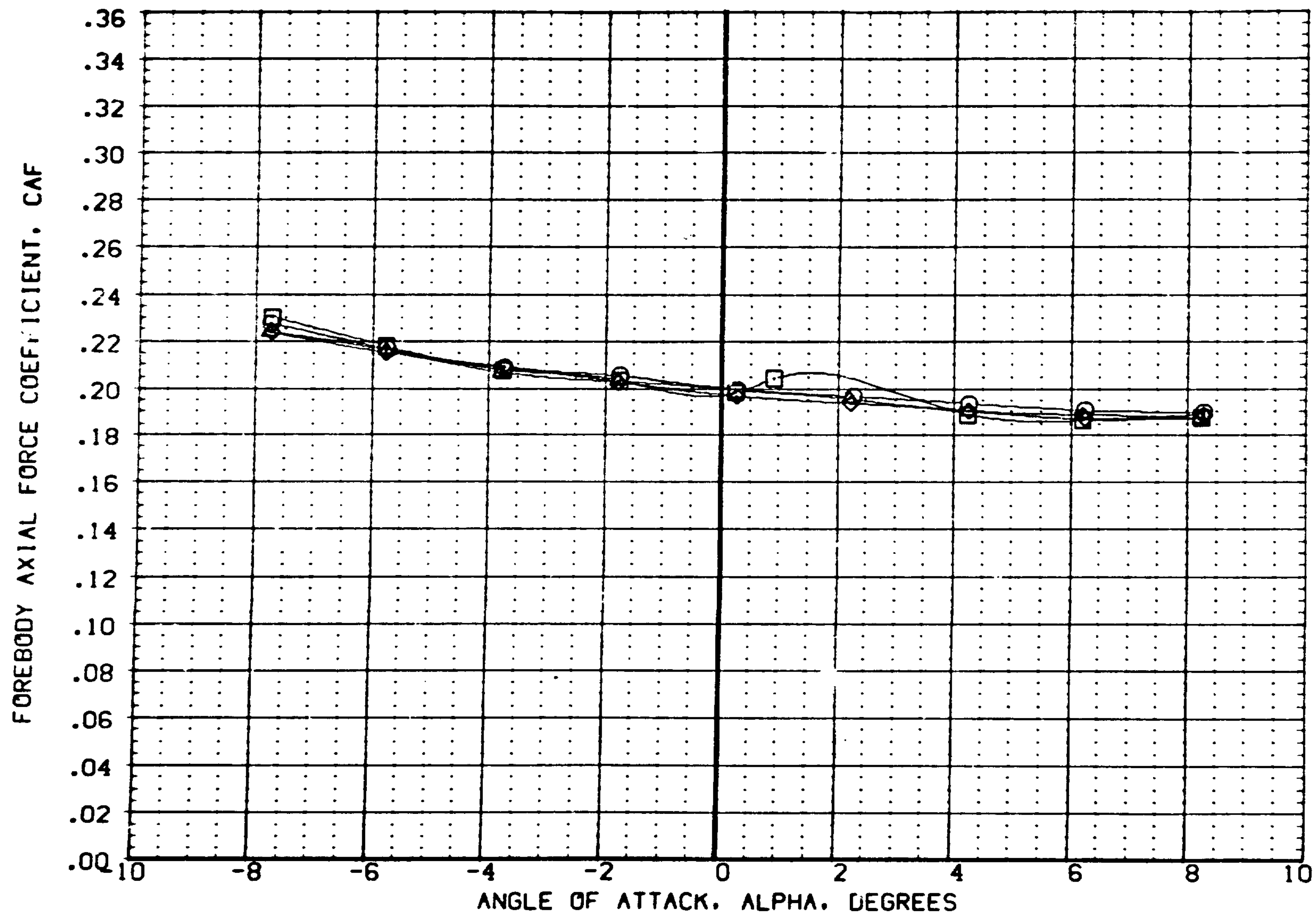


ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

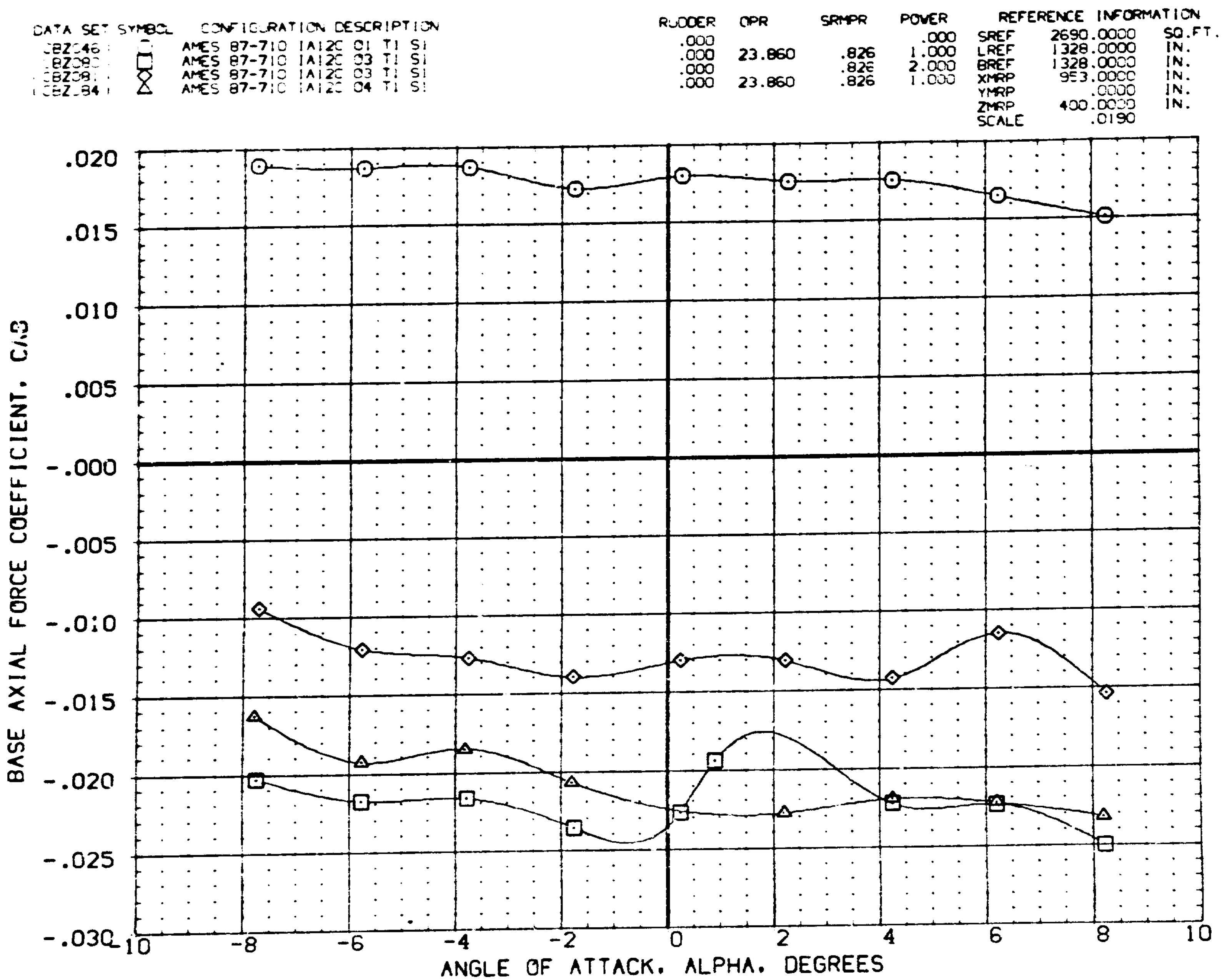
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ046		AMES 87-710 IA120 O1 T1 S1	.000			.000
CBZ080	□	AMES 87-710 IA120 O3 T1 S1	.000	23.860	.826	1.000
CBZ081	◇	AMES 87-710 IA120 O3 T1 S1	.000		.826	2.000
CBZ084	△	AMES 87-710 IA120 O4 T1 S1	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



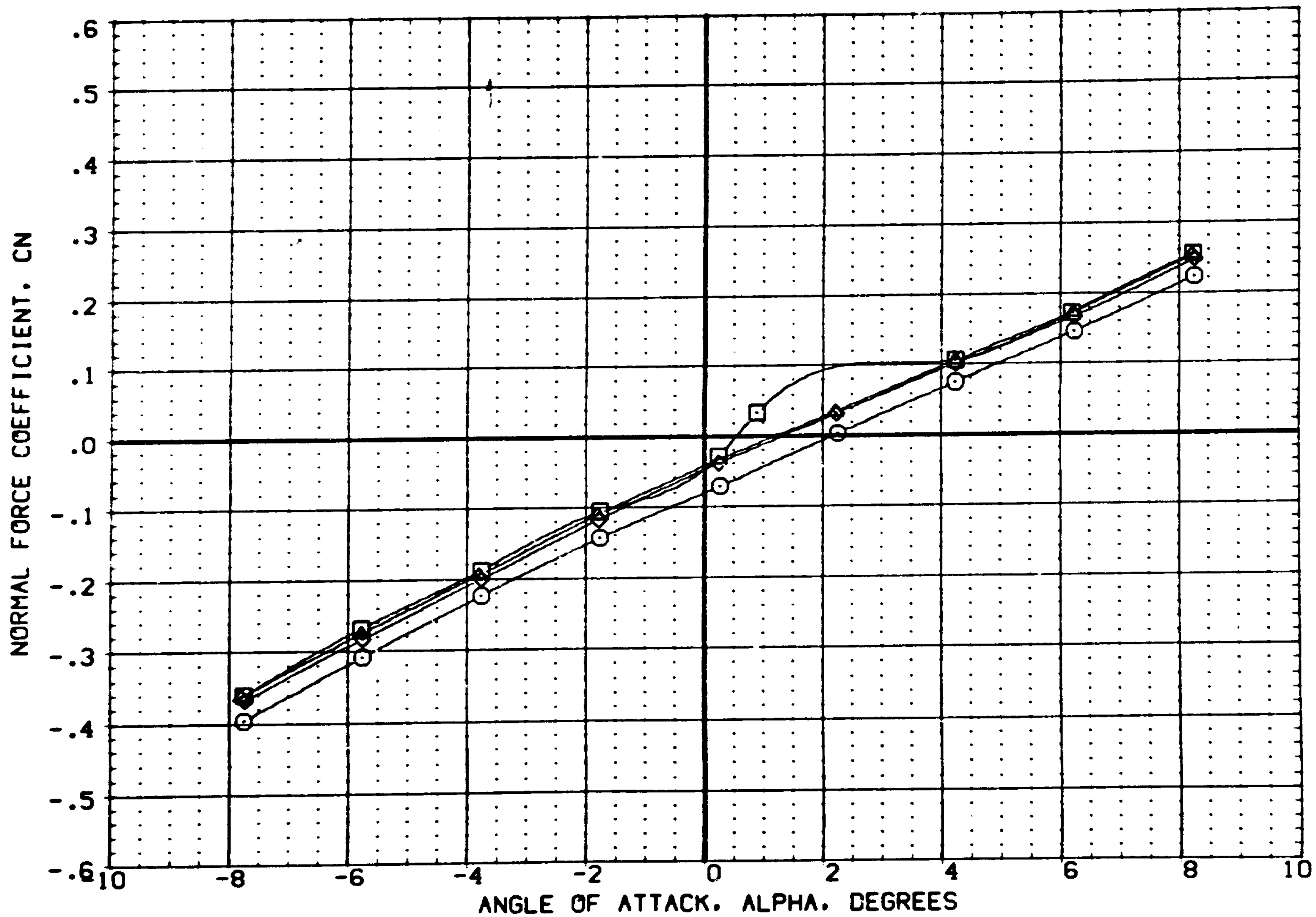
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ080)	□	AMES 87-710 IA12C 03 T1 S1	.000	23.860	.826	1.000
(CBZ081)	◇	AMES 87-710 IA12C 03 T1 S1	.000		.826	2.000
(CBZ084)	△	AMES 87-710 IA12C 04 T1 S1	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

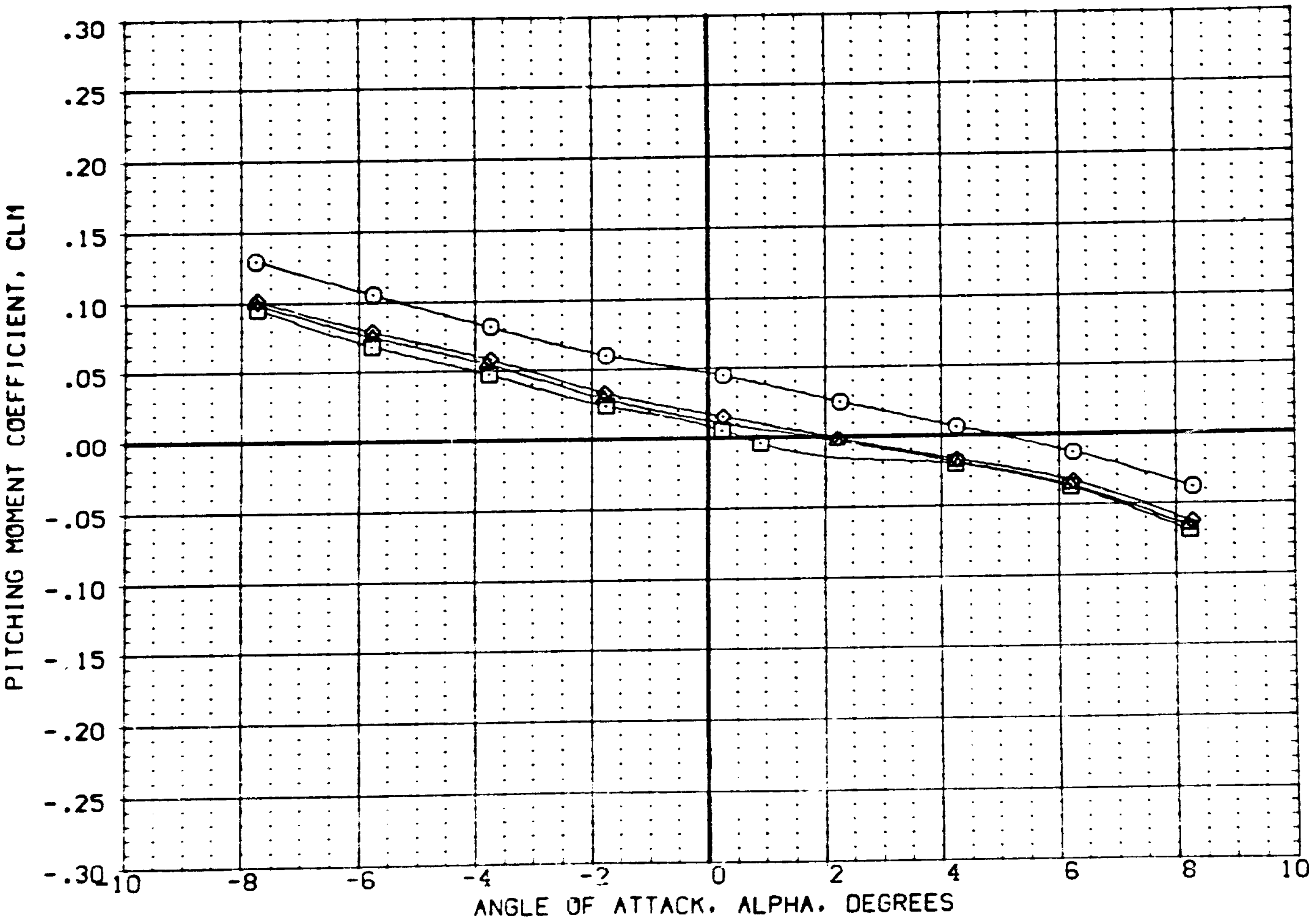
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
CBZ046	○	AMES 87-710 IA12C 01 T1 S1
CBZ080	□	AMES 87-710 IA12C 03 T1 S1
CBZ08.	◇	AMES 87-710 IA12C 03 T1 S1
CBZ084	△	AMES 87-710 IA12C 04 T1 S1

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	23.860	.826	1.000
.000		.826	2.000
.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



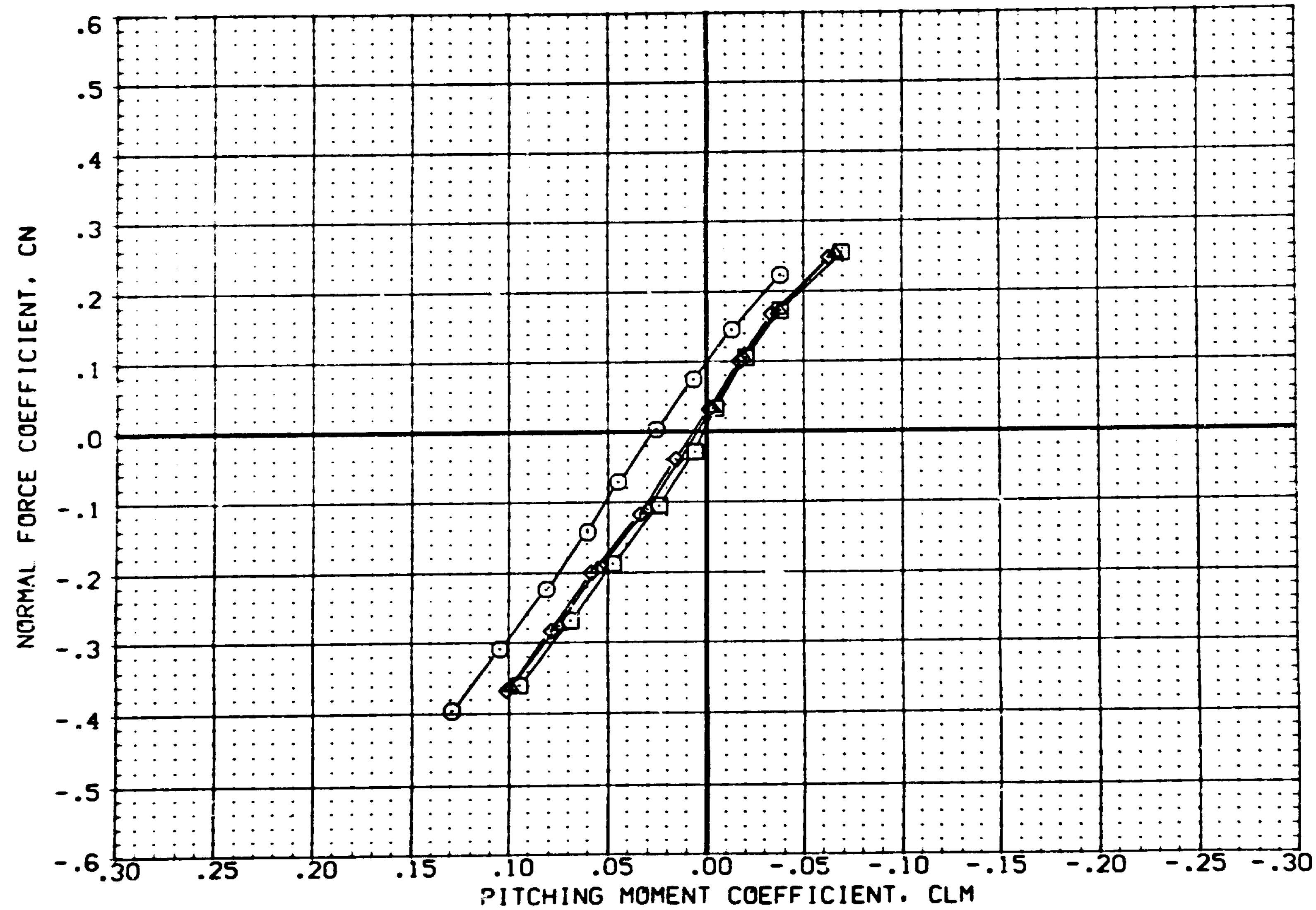
ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
IBZ046	○	AMES 87-710 IA12C 01 T1 S1
IBZ080	□	AMES 87-710 IA12C 03 T1 S1
IBZ081	◇	AMES 87-710 IA12C 03 T1 S1
IBZ084	△	AMES 87-710 IA12C 04 T1 S1

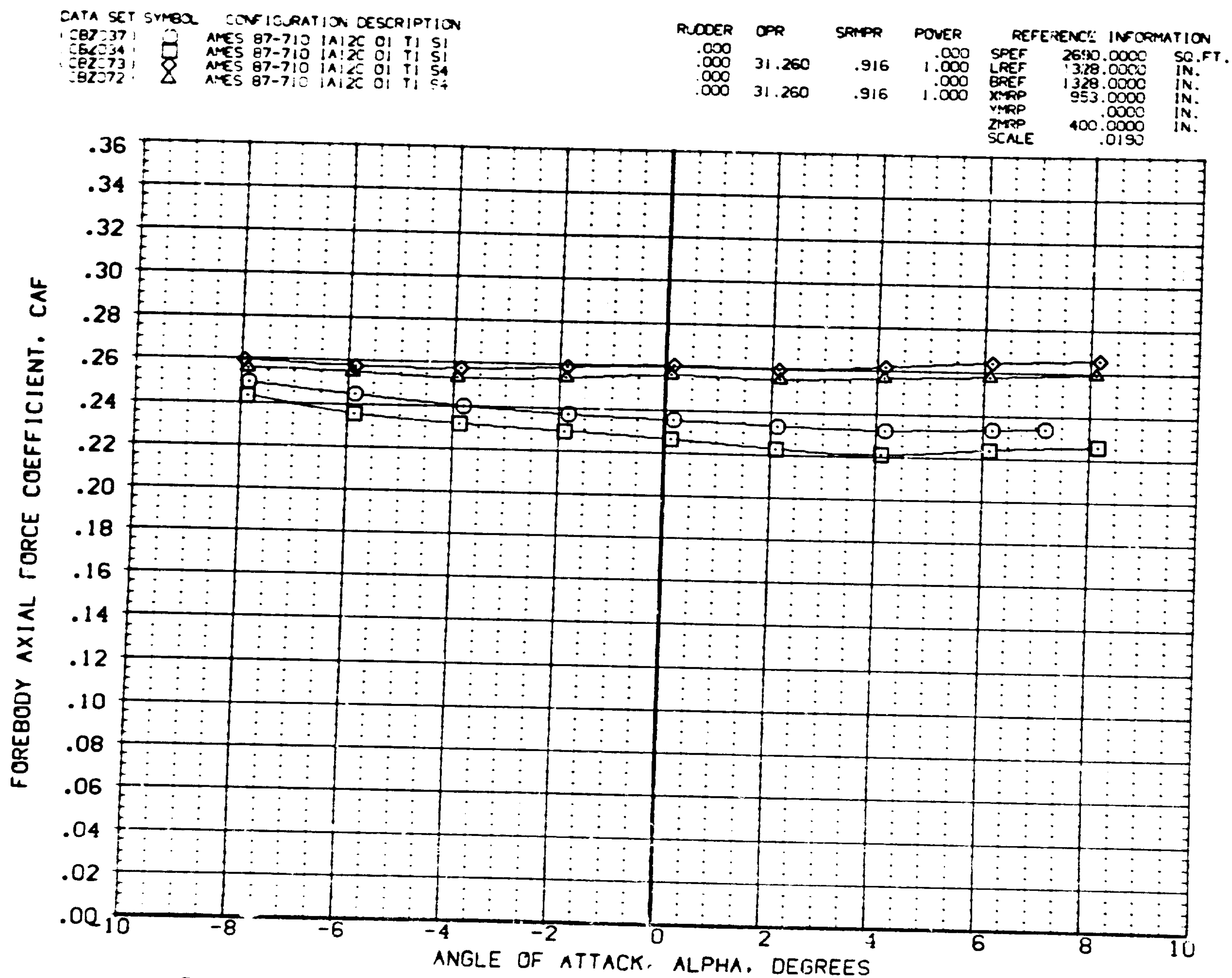
RUDDER	JPR	SRMPR	POWER
.000			.000
.000	23.860	.826	1.000
.000		.826	2.000
.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

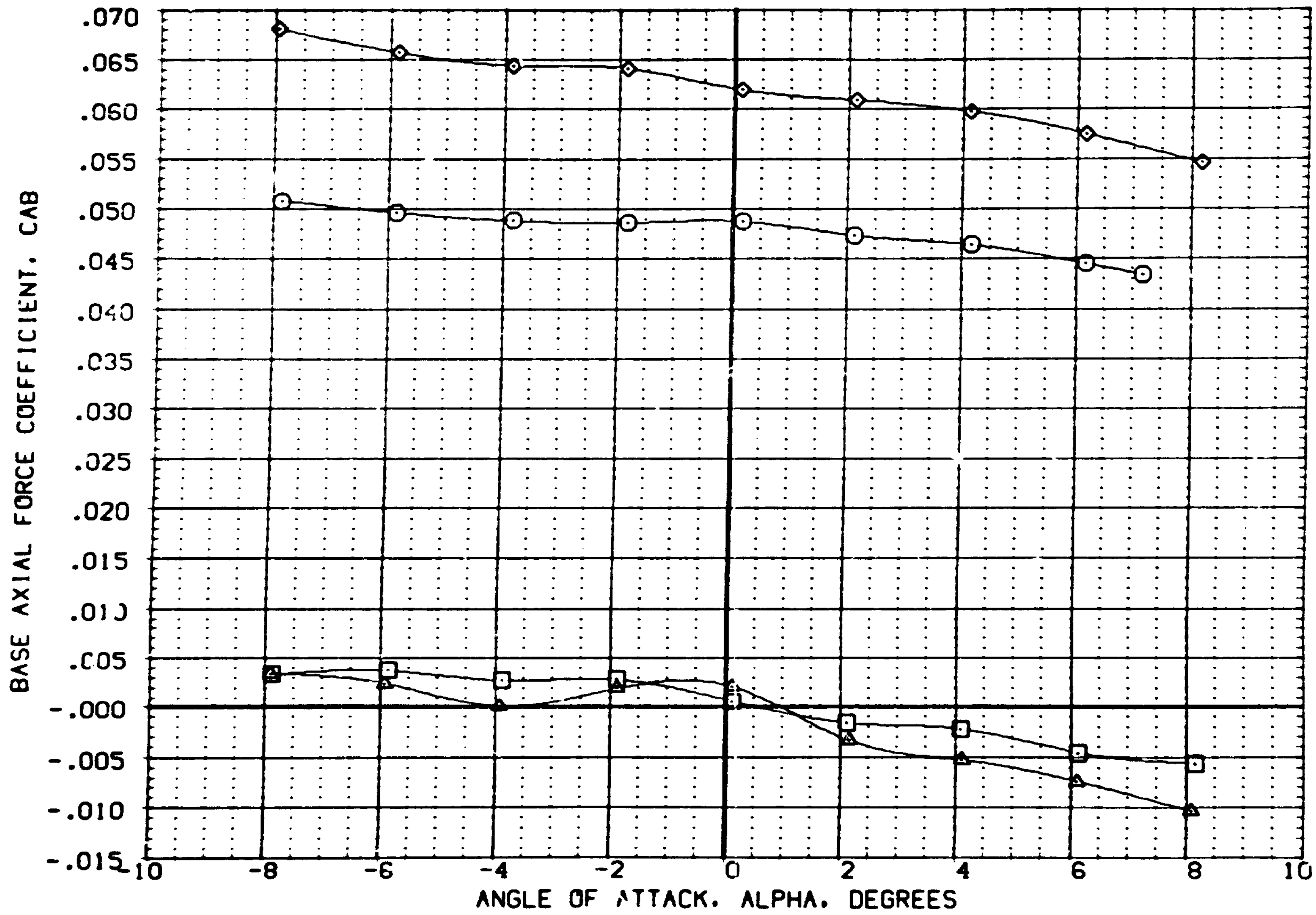


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BZ037		AMES 87-710 IA120 01 T1 S1	.000			.000
BZ034		AMES 87-710 IA120 01 T1 S1	.000	31.260	.916	1.000
BZ07		AMES 87-710 IA120 01 T1 S4	.000			.000
BZ072		AMES 87-710 IA120 01 T1 S4	.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



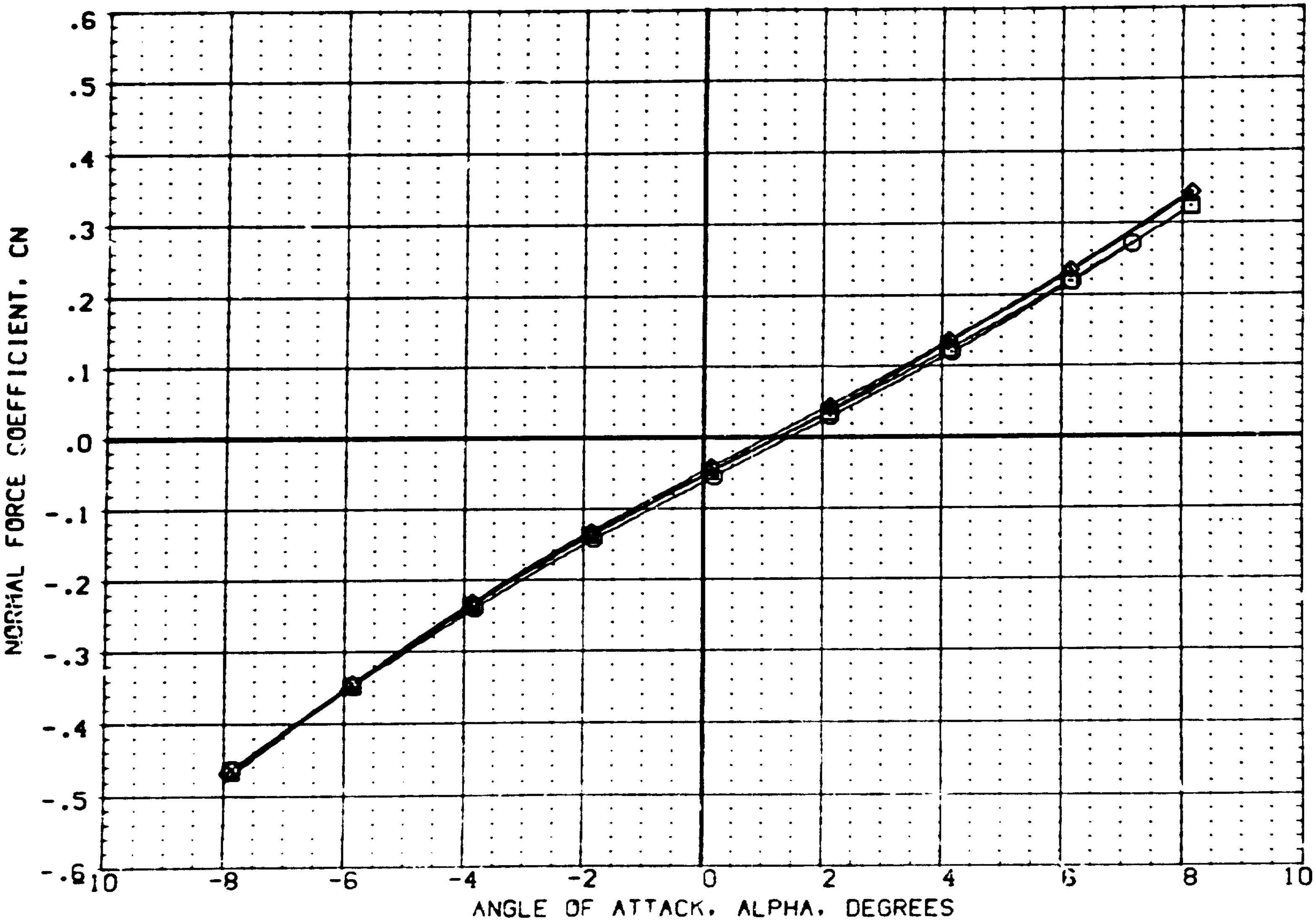
PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ037)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ034)	□	AMES 87-710 IA12C 01 T1 S1	.000	31.260	.916	1.000
(BZ073)	◇	AMES 87-710 IA12C 01 T1 S4	.000			.000
(BZ072)	△	AMES 87-710 IA12C 01 T1 S4	.000	31.260	.916	1.000

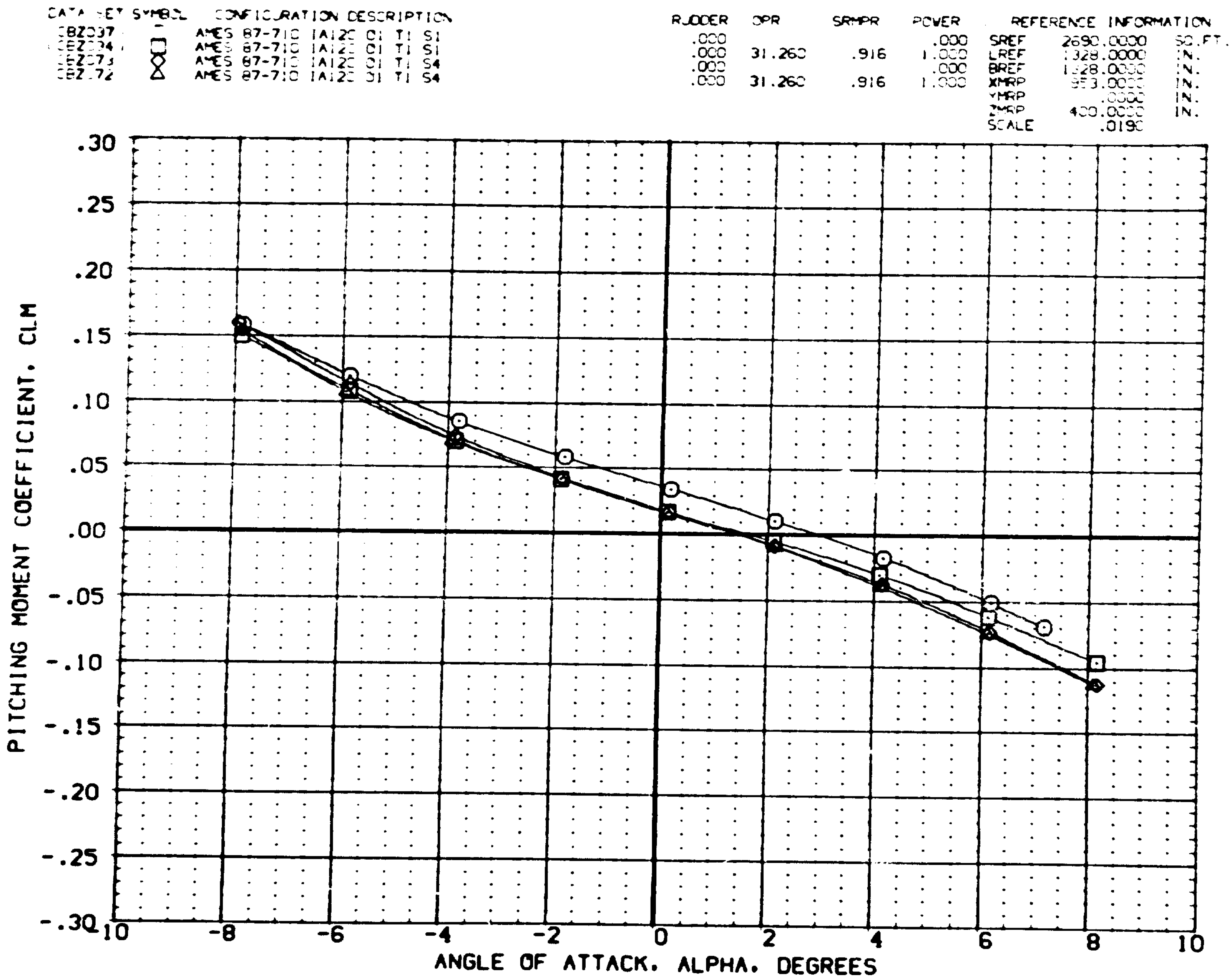
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



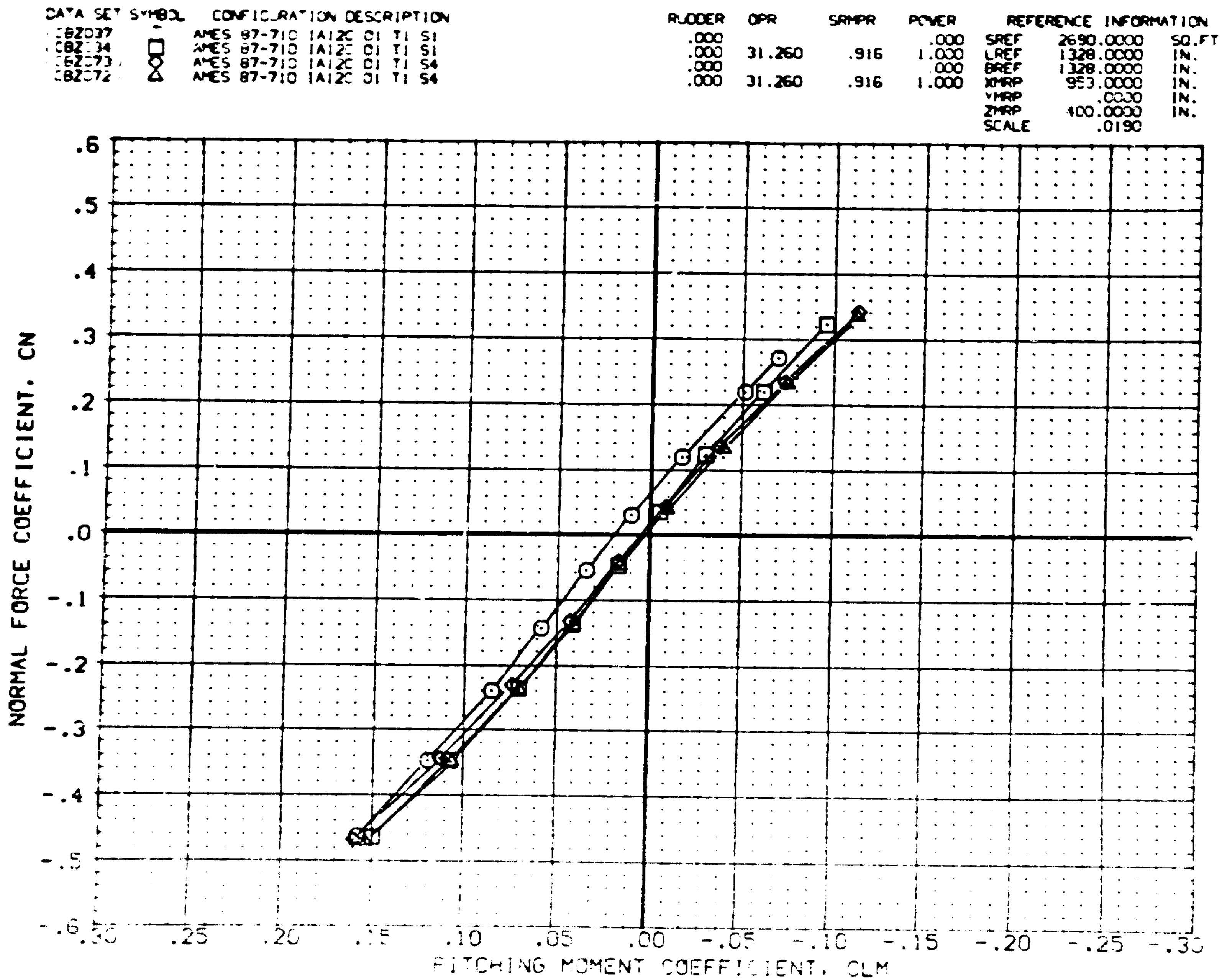
PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

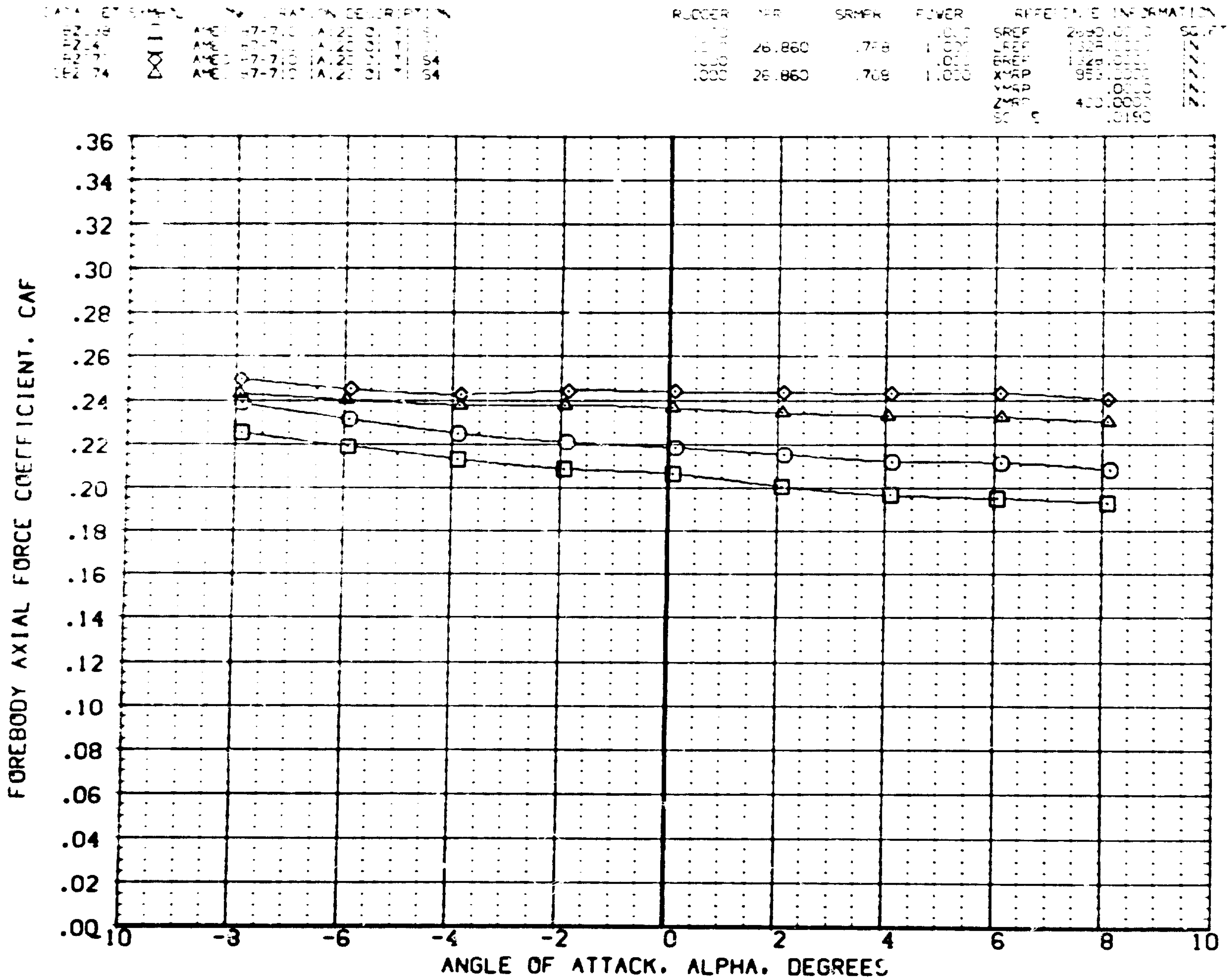


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



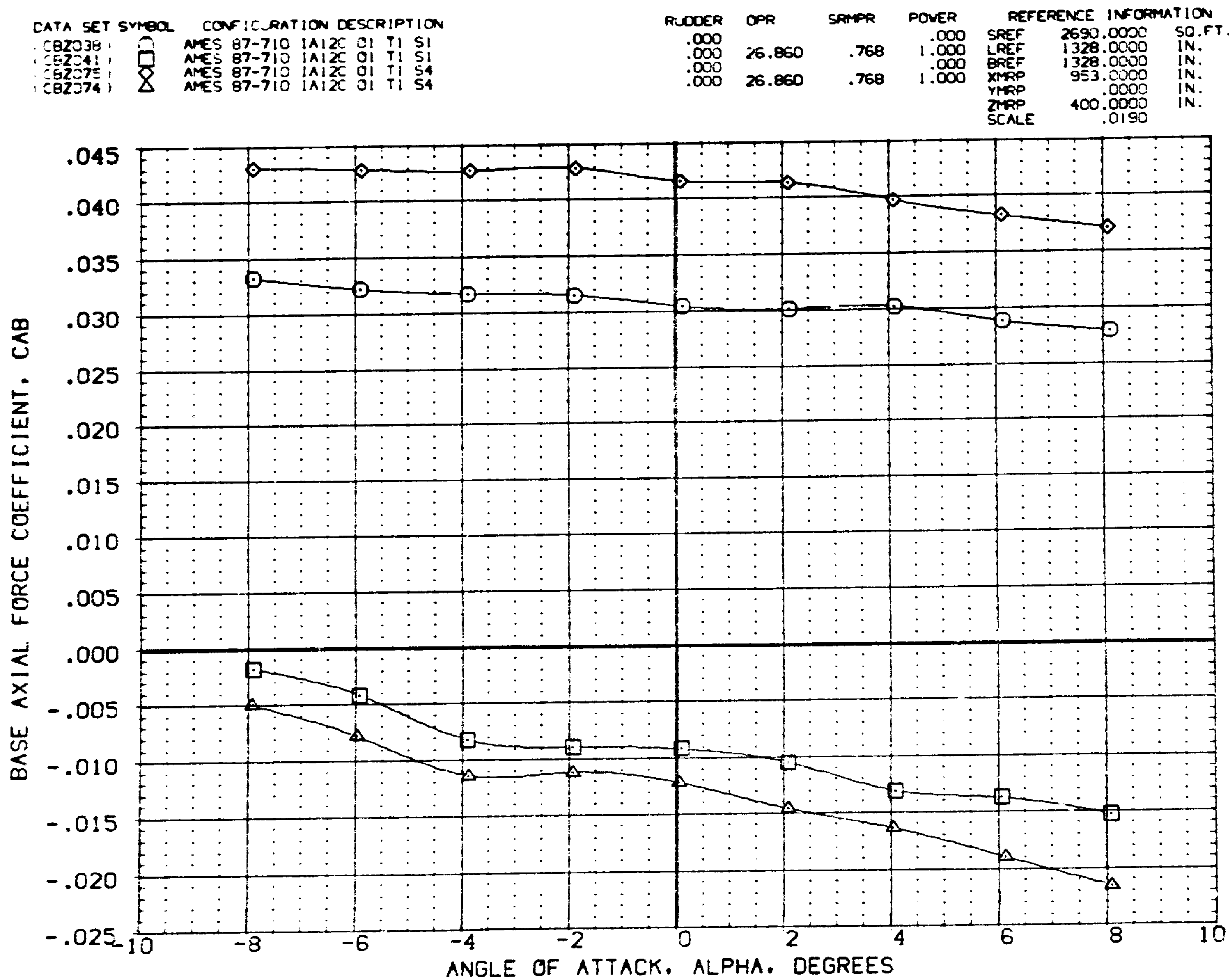
PLUME AND ... EFFECTS ON LONGITUDINAL CHARACTERISTICS



PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

C-3



PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ038		AMES 87-710 IA12C O1 T1 S1	.000			.000
CBZ041	□	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
CBZ075	◇	AMES 87-710 IA12C O1 T1 S4	.000			.000
CBZ074	△	AMES 87-710 IA12C O1 T1 S4	.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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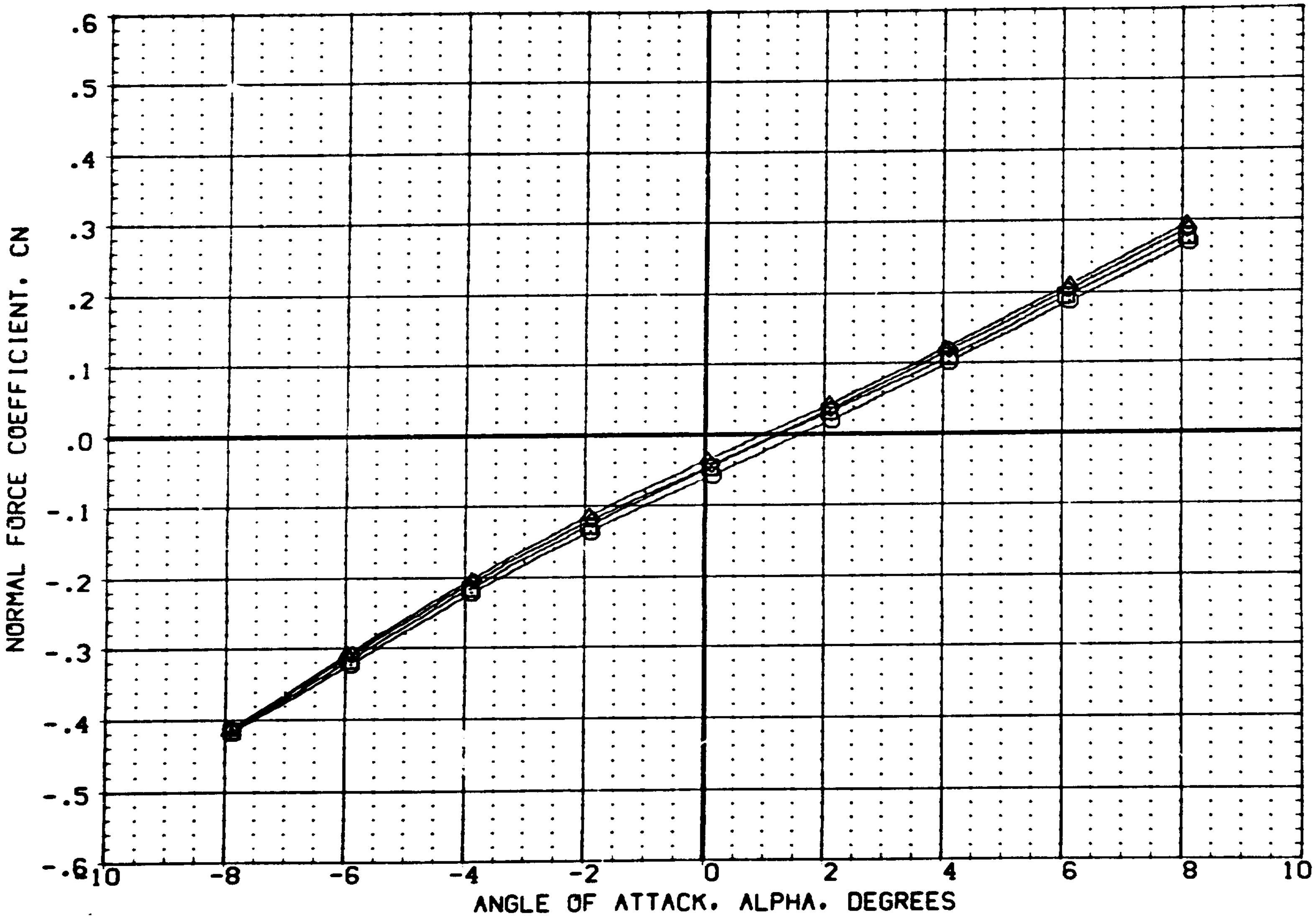

PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ038)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ041)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(BZ075)	⧖	AMES 87-710 IA12C 01 T1 S4	.000			.000
(BZ074)	△	AMES 87-710 IA12C 01 T1 S4	.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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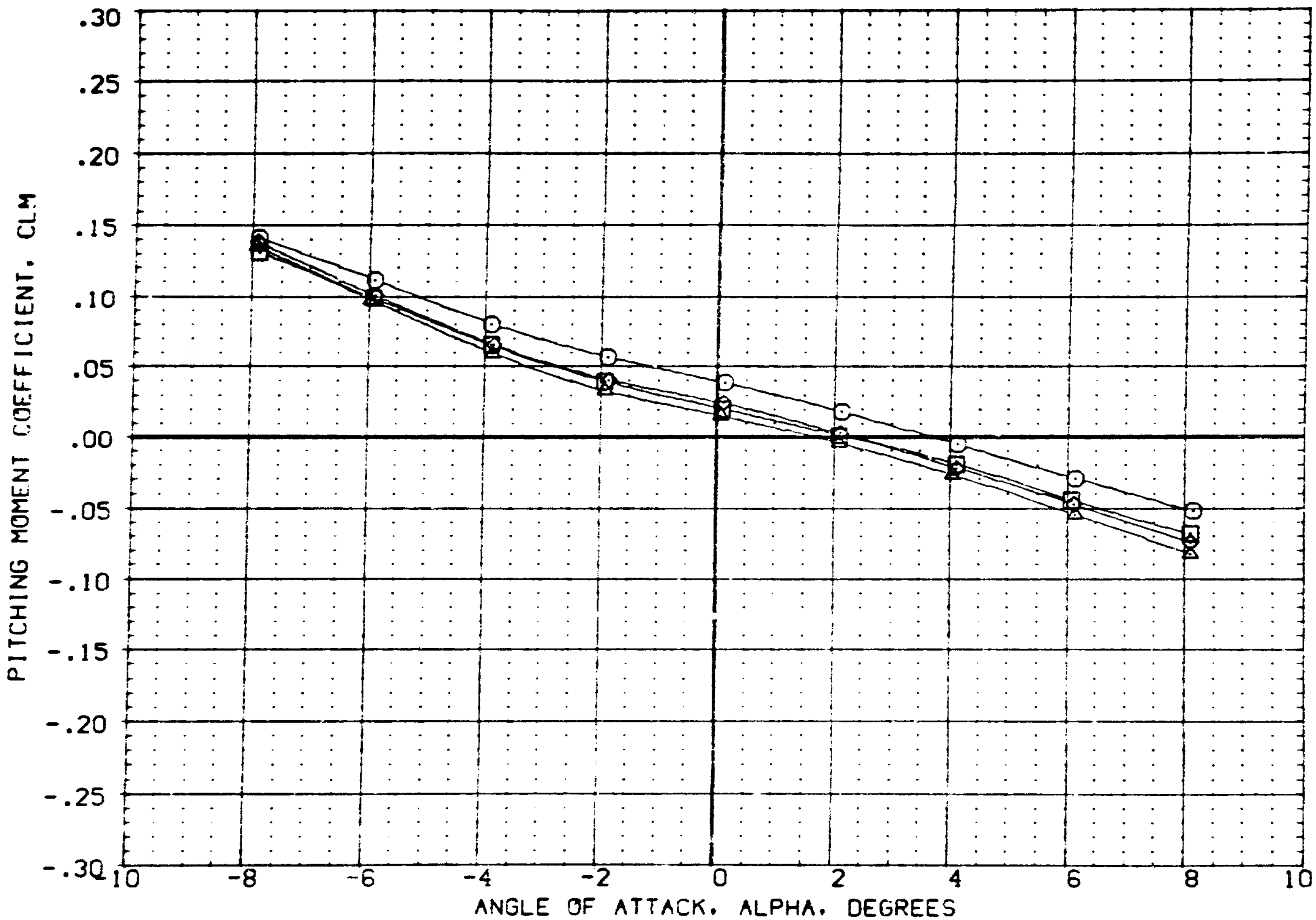
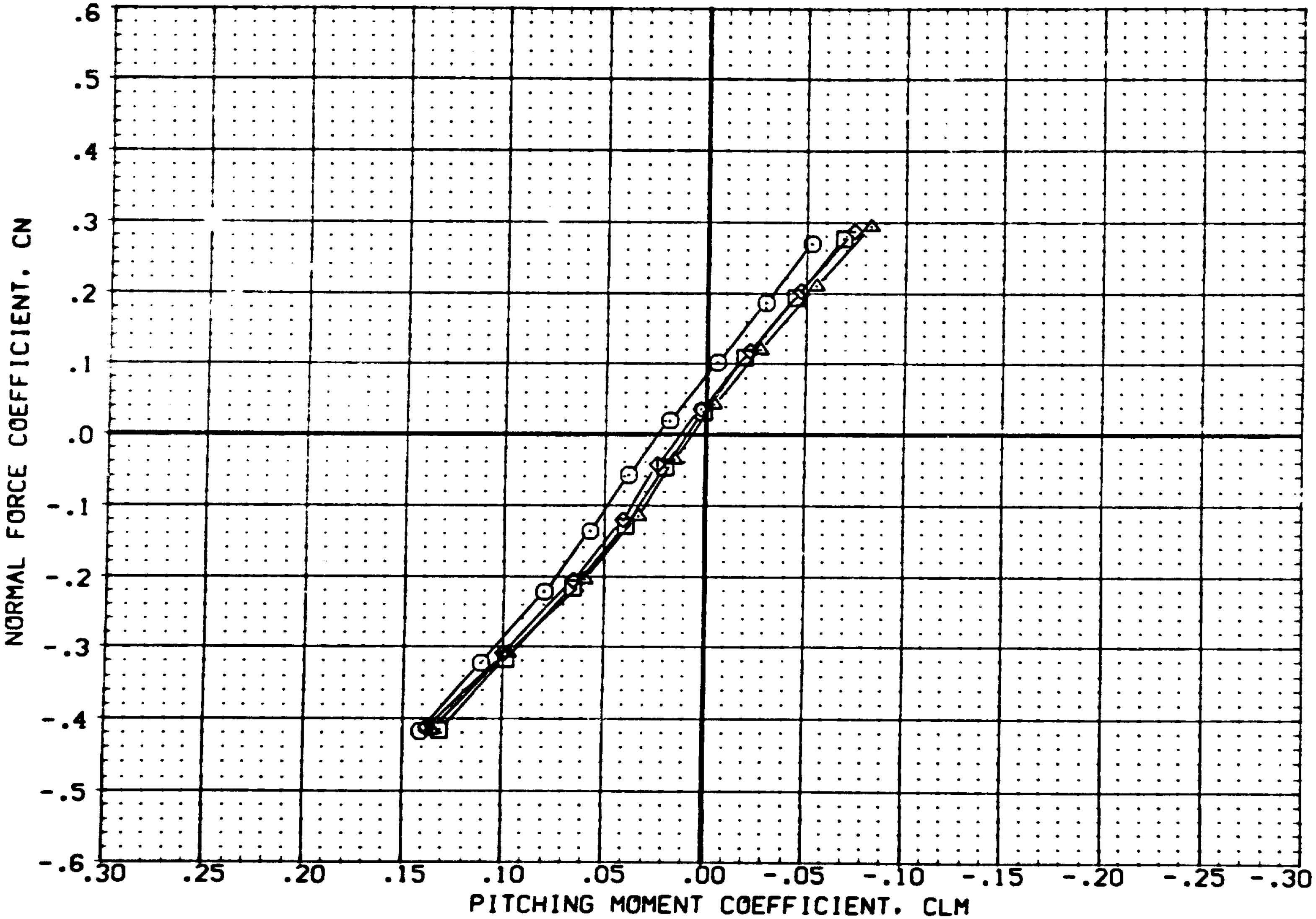


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ039)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ041)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(BZ075)	◇	AMES 87-710 IA12C 01 T1 S4	.000			.000
(BZ074)	△	AMES 87-710 IA12C 01 T1 S4	.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

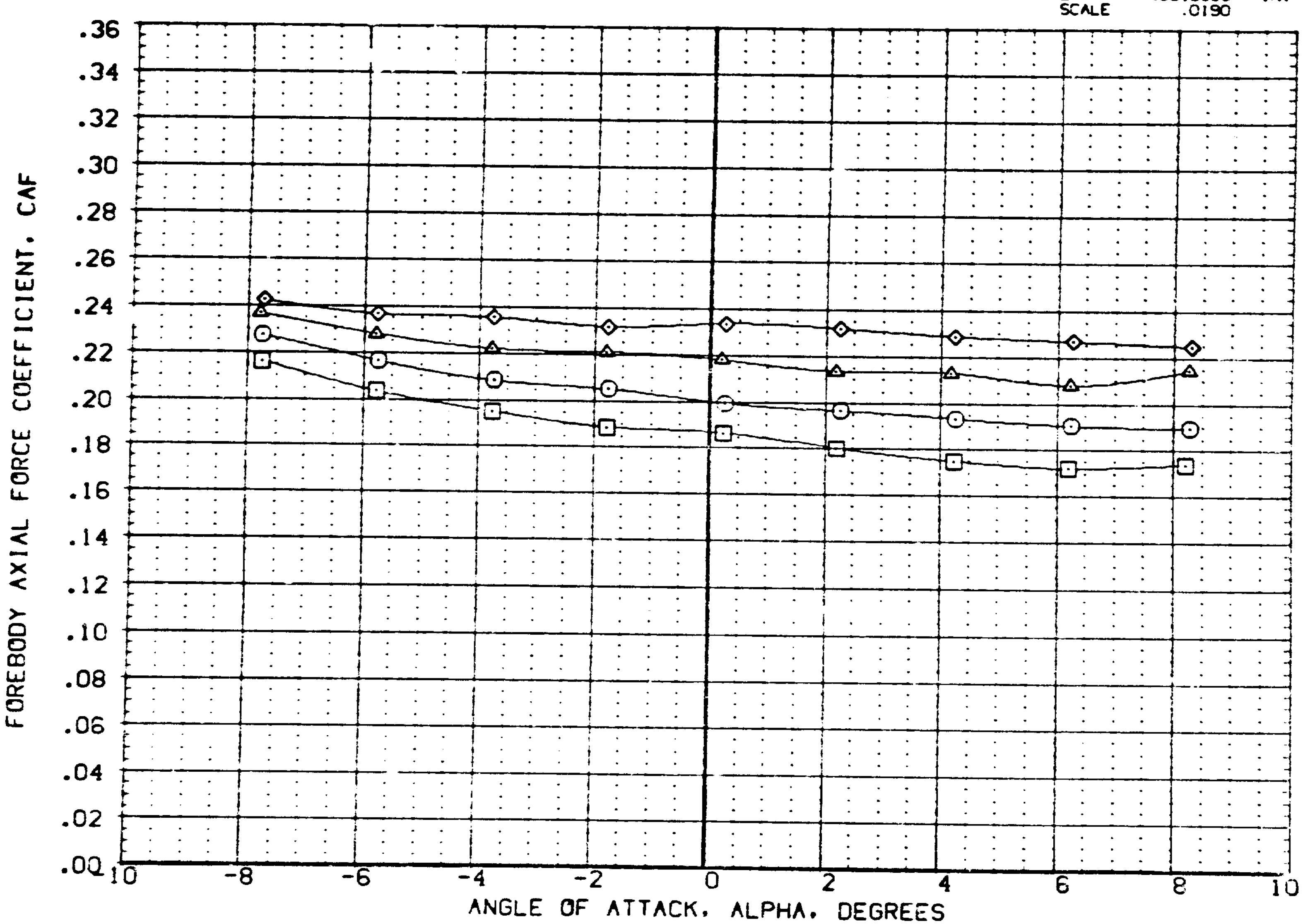


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
CBZ046		AMES 87-710 IA12C OI TI SI
CBZ050	□	AMES 87-710 IA12C OI TI SI
CBZ077	◇	AMES 87-710 IA12C OI TI S4
CBZ076	△	AMES 87-710 IA12C OI TI S4

RUDDER	OPR	SRMPR	POWER	REFERENCE INFORMATION		
.000			.000	SREF	2690.0000	SQ.FT.
.000	23.860	.826	1.000	LREF	1328.0000	IN.
.000			.000	BREF	1328.0000	IN.
.000	23.860	.826	1.000	XMRP	953.0000	IN.
				YMRP	.0000	IN.
				ZMRP	400.0000	IN.
				SCALE	.0190	

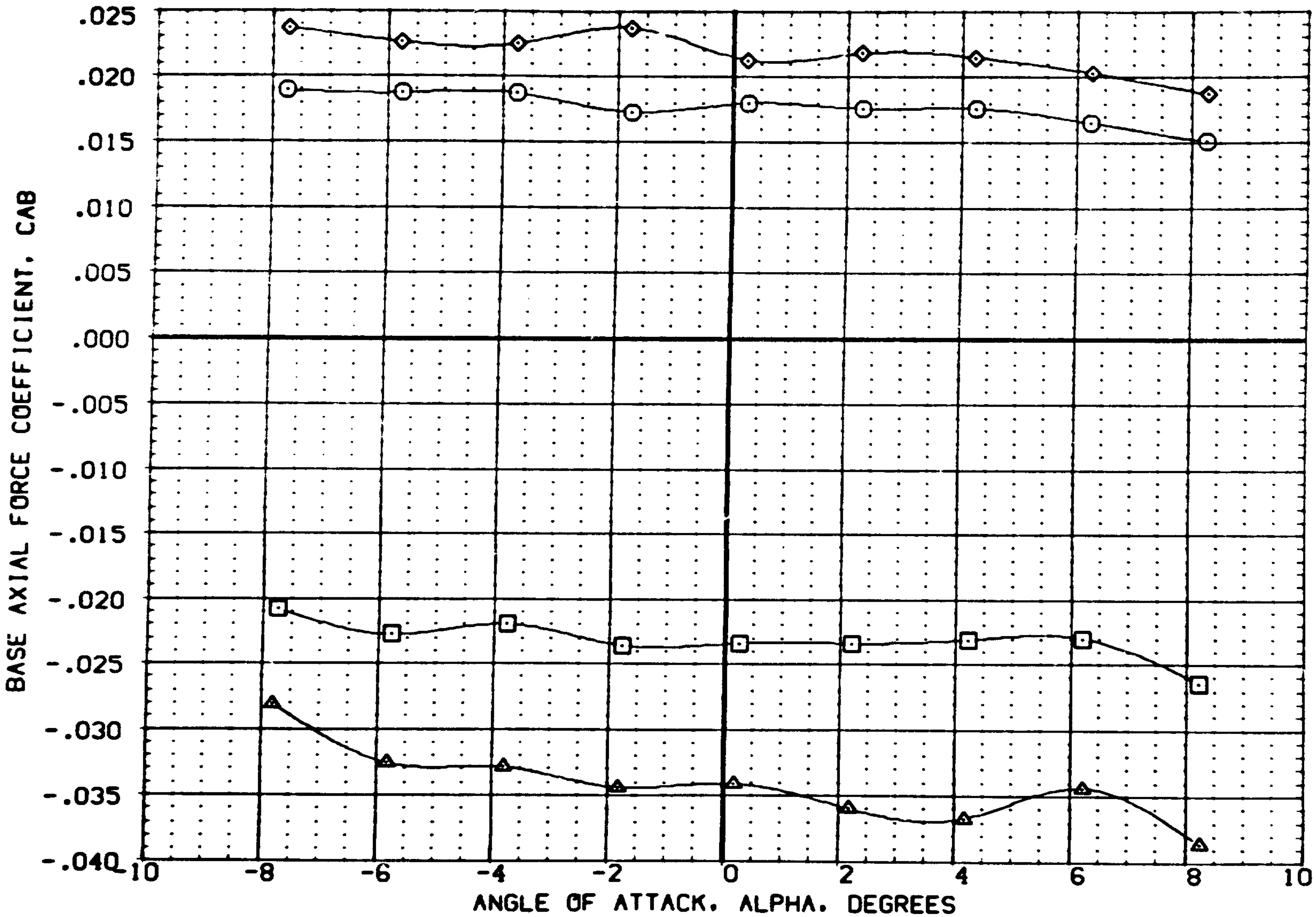


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(CBZ050)	□	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
(CBZ077)	◇	AMES 87-710 IA12C O1 T1 S4	.000			.000
(CBZ076)	△	AMES 87-710 IA12C O1 T1 S4	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

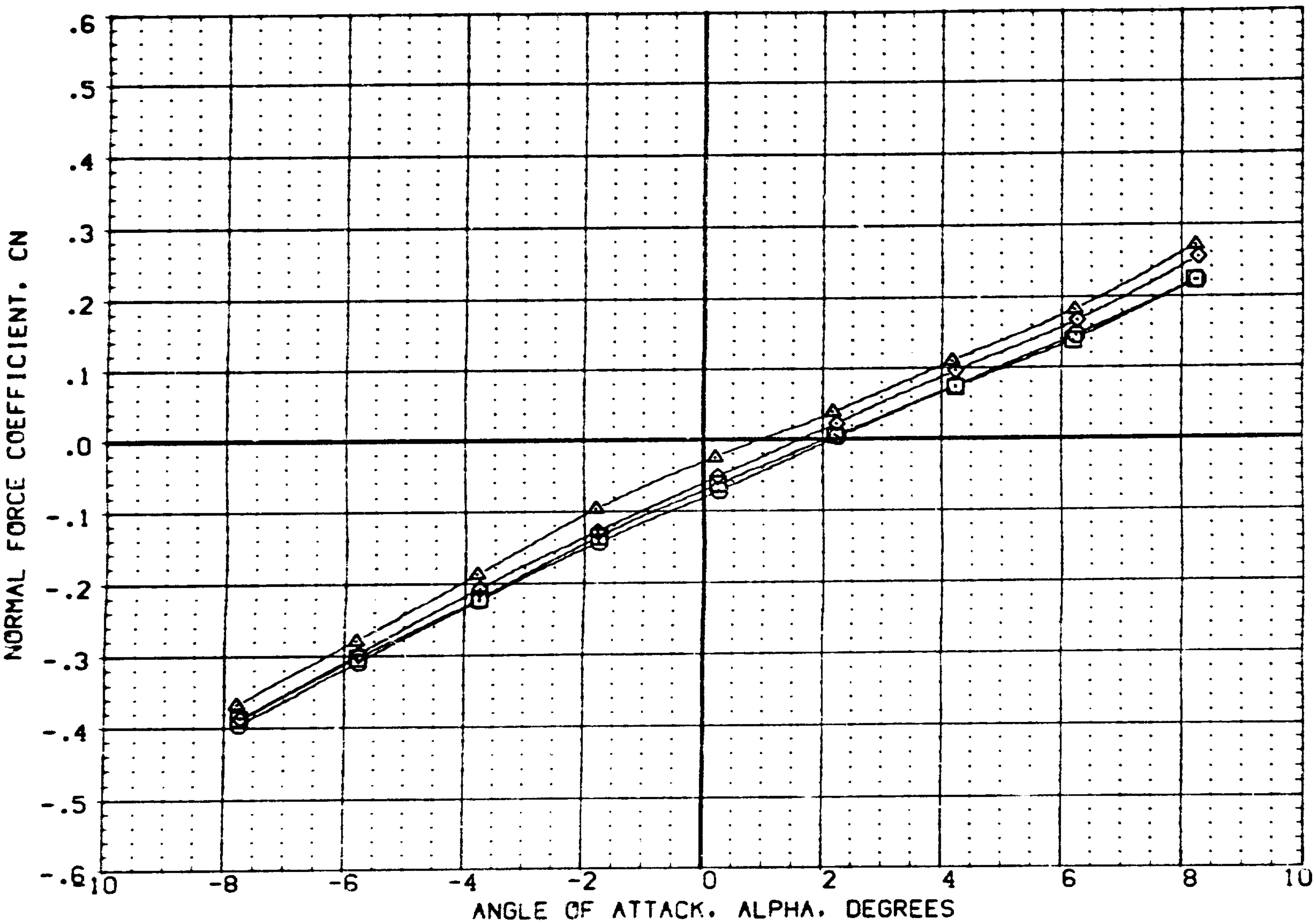


PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C OI TI SI	.000			.000
(BZ05[illegible])	□	AMES 87-710 IA12C OI TI SI	.000	23.860	.826	1.000
(CBZ077)	◇	AMES 87-710 IA12C OI TI S4	.000			.000
(CEZ076)	△	AMES 87-710 IA12C OI TI S4	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



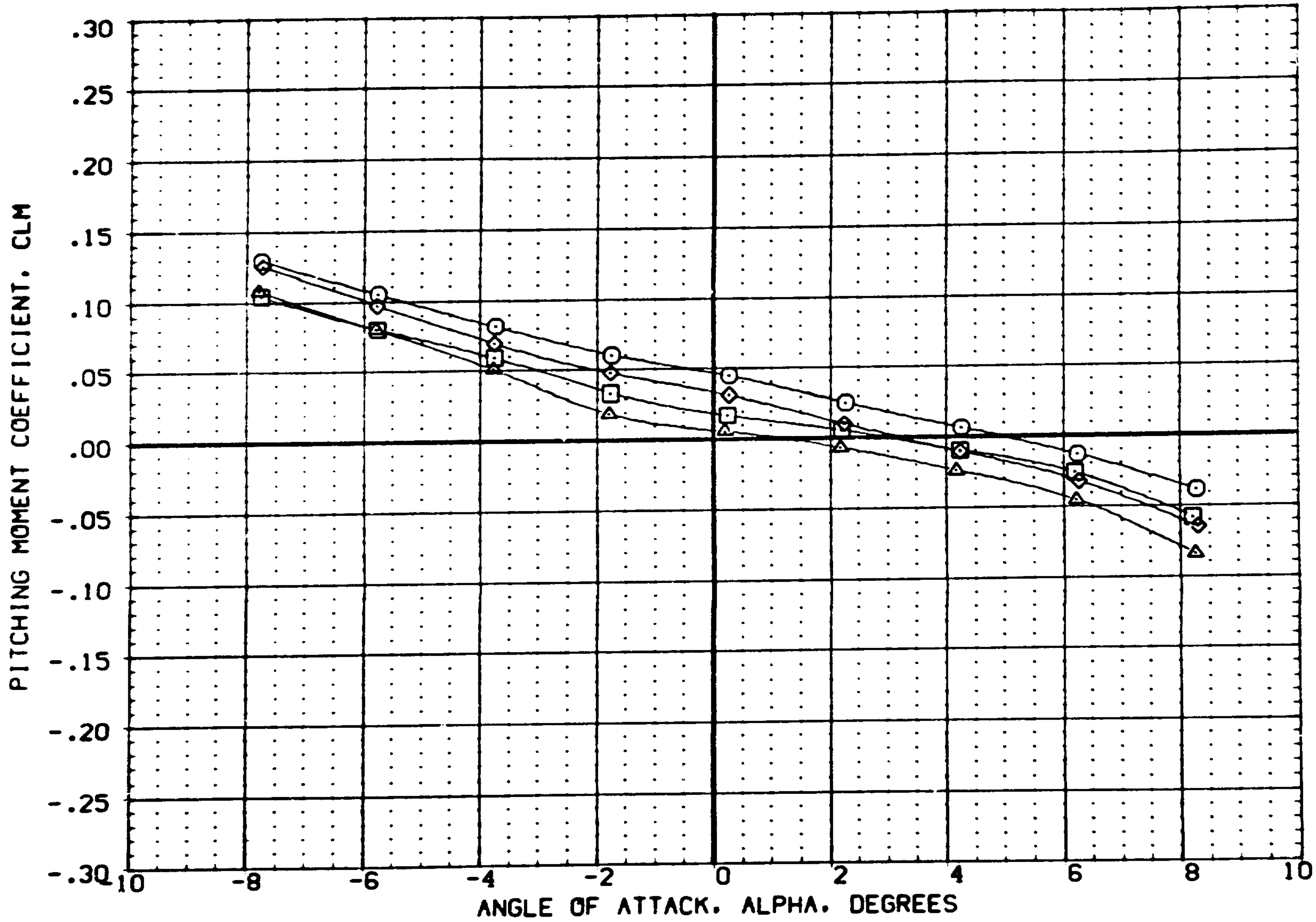
PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ046	⊙	AMES 87-710 IA12C OI TI SI	.000			.000
[illegible]	□	AMES 87-710 IA12C OI TI SI	.000	23.860	.826	1.000
CBZ077	◇	AMES 87-710 IA12C OI TI S4	.000			.000
CBZ076	△	AMES 87-710 IA12C OI TI S4	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



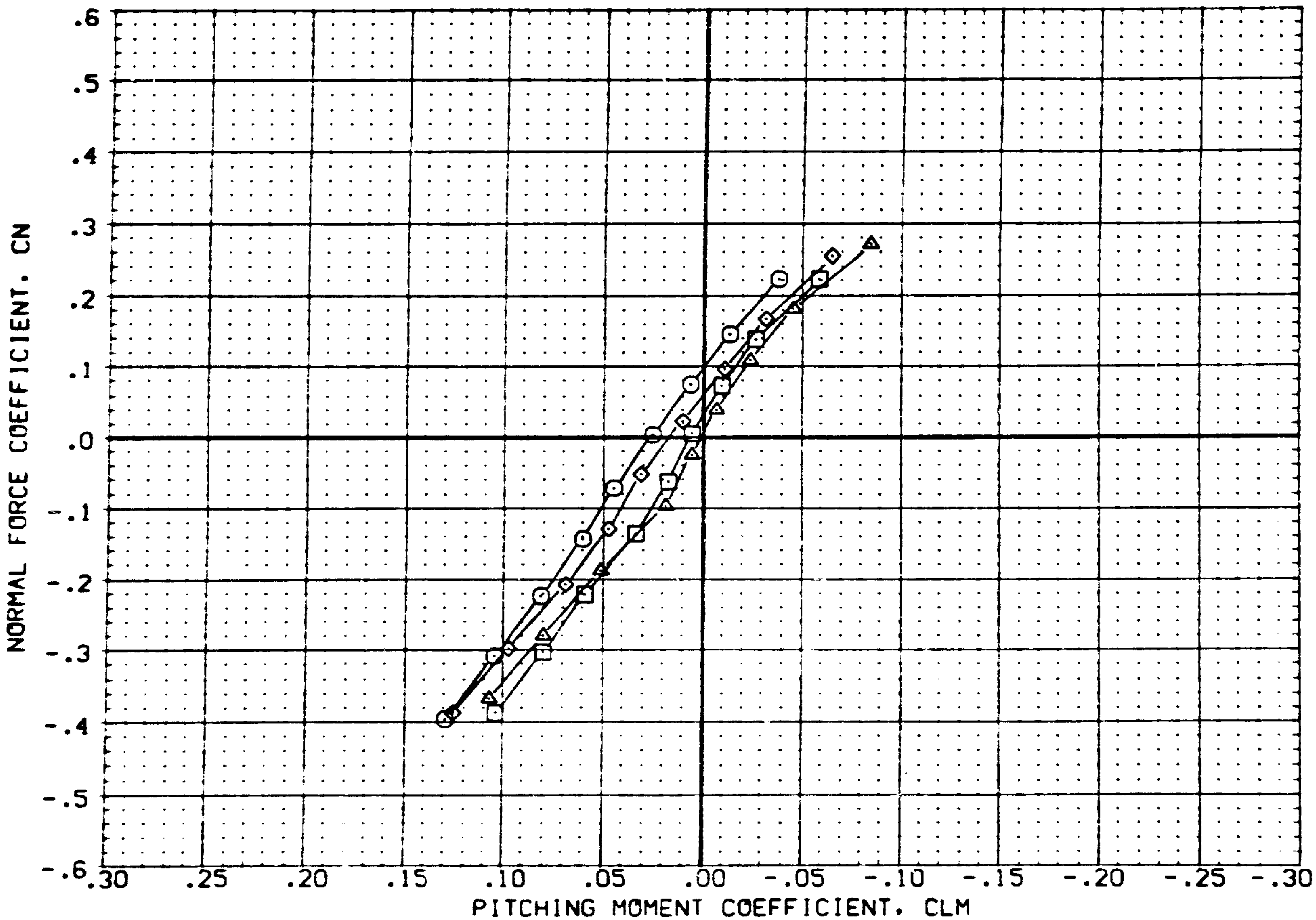
PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(CBZ050)	□	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
(CBZ077)	◇	AMES 87-710 IA12C O1 T1 S4	.000			.000
(CBZ076)	△	AMES 87-710 IA12C O1 T1 S4	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB SHROUD EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
CBZ037	○	AMES 87-710 IA12C 01 T1 S1	1.000			.000
CBZ099	□	AMES 87-710 IA12C 01 T1 S1	4.000	31.260	.916	1.000
CBZ034	◇	AMES 87-710 IA12C 01 T1 S1	1.000	31.260	.916	1.000
CBZ096	△	AMES 87-710 IA12C 01 T1 S1	3.000	31.260	.916	1.000
CBZ027	◁	AMES 87-710 IA12C 02 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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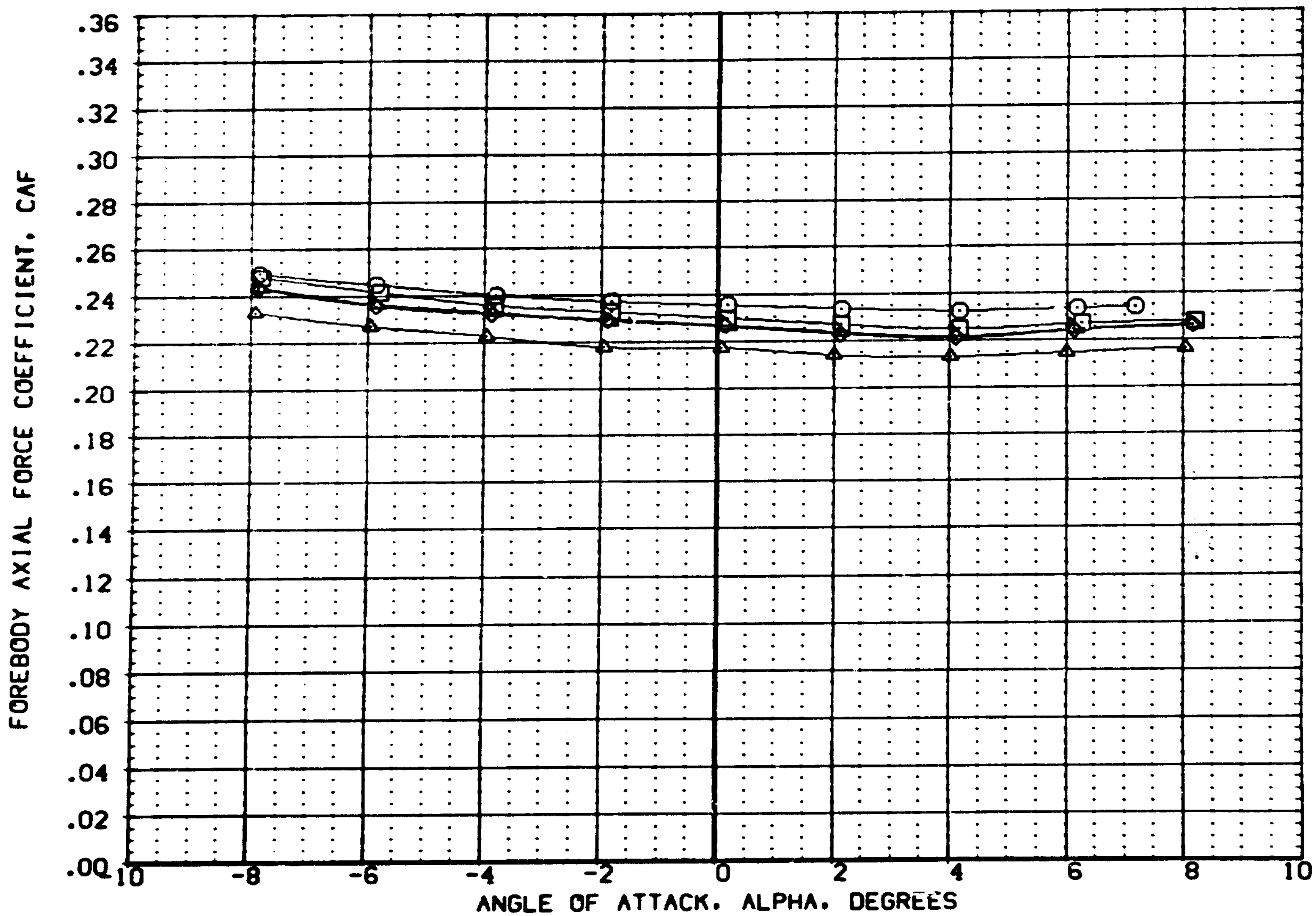
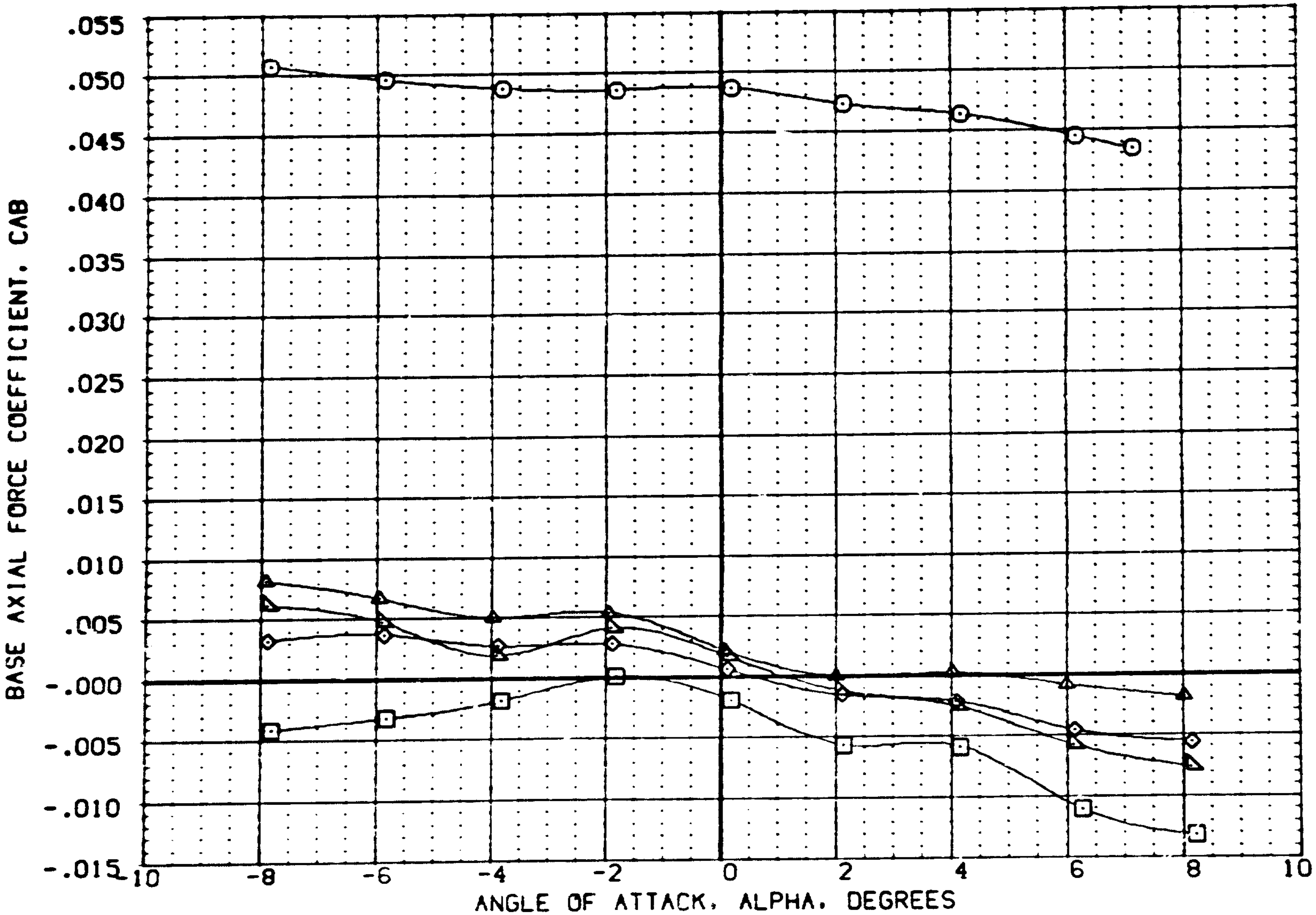


PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

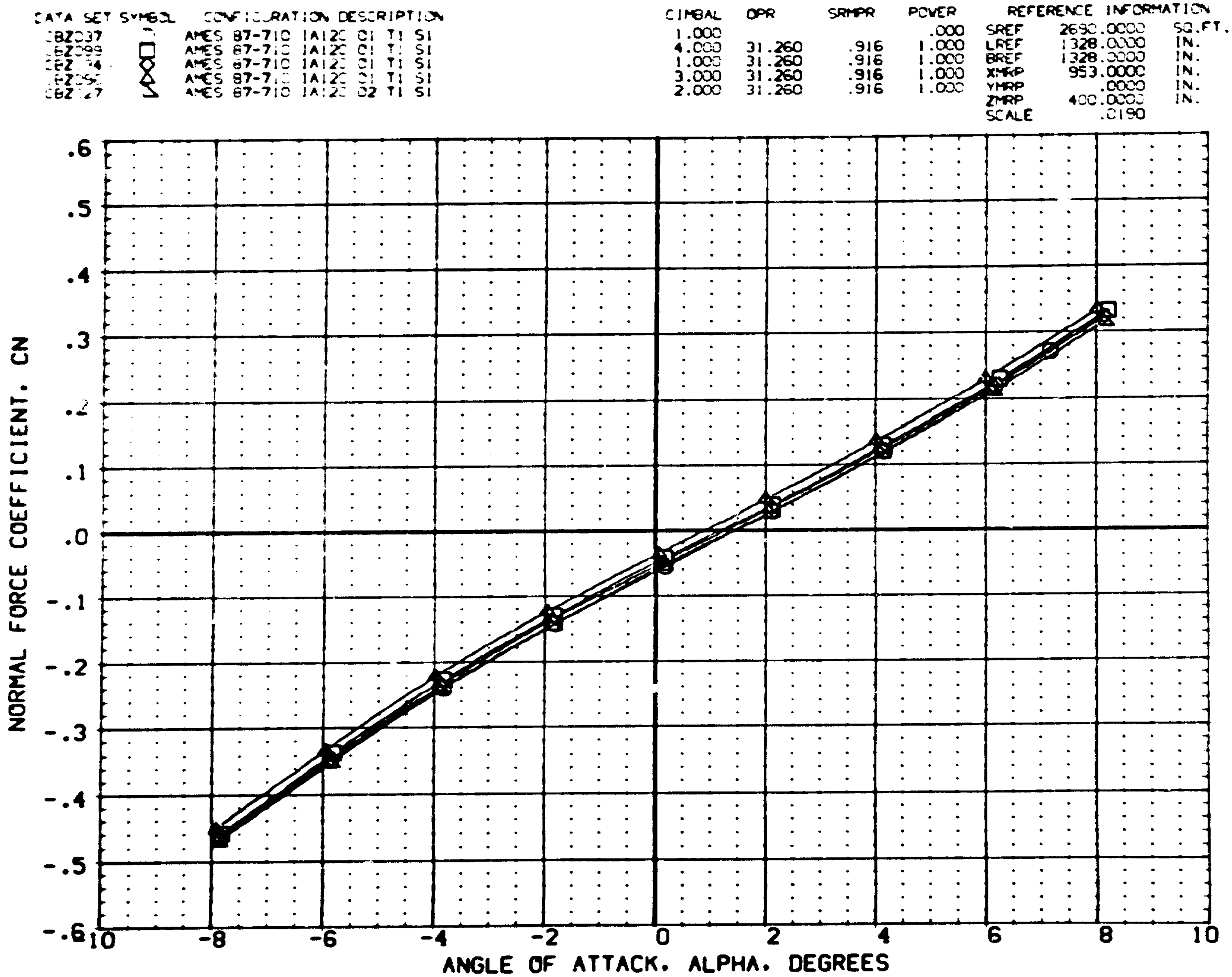
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	DPR	SRMPR	POWER
(CBZ037)	○	AMES 87-710 IA12C O1 T1 S1	1.000			.000
(CBZ099)	□	AMES 87-710 IA12C O1 T1 S1	4.000	31.260	.916	1.000
(CBZ034)	◇	AMES 87-710 IA12C O1 T1 S1	1.000	31.260	.916	1.000
(CBZ090)	△	AMES 87-710 IA12C O1 T1 S1	3.000	31.260	.916	1.000
(CBZ027)	◁	AMES 87-710 IA12C O2 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



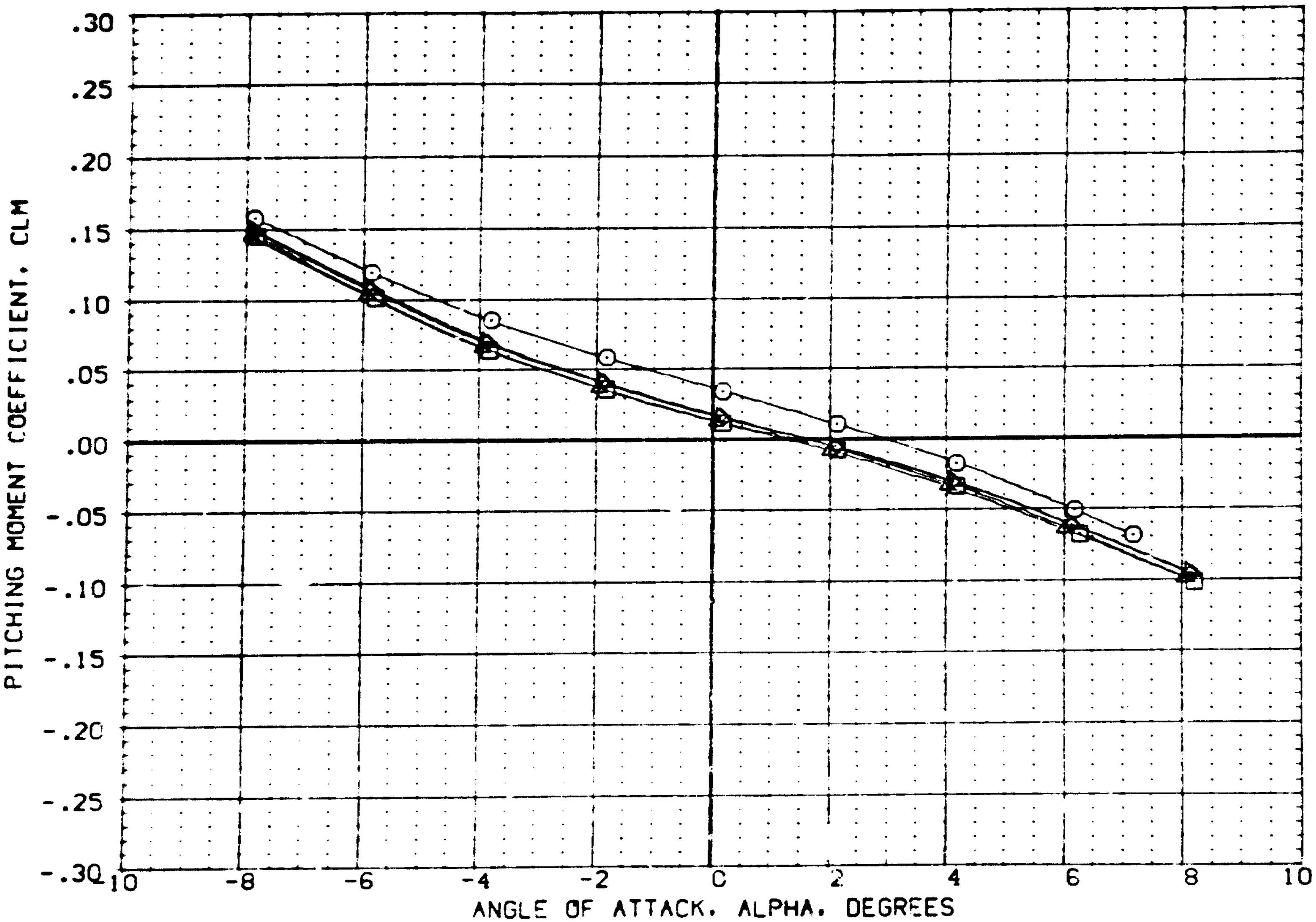
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
CBZ037	AMES 87-710 IA12C 01 T1 S1	1.000			.000
CBZ199	AMES 87-710 IA12C 01 T1 S1	4.000	31.260	.916	1.000
CBZ034	AMES 87-710 IA12C 01 T1 S1	1.000	31.260	.916	1.000
CBZ096	AMES 87-710 IA12C 01 T1 S1	3.000	31.260	.916	1.000
CBZ027	AMES 87-710 IA12C 02 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

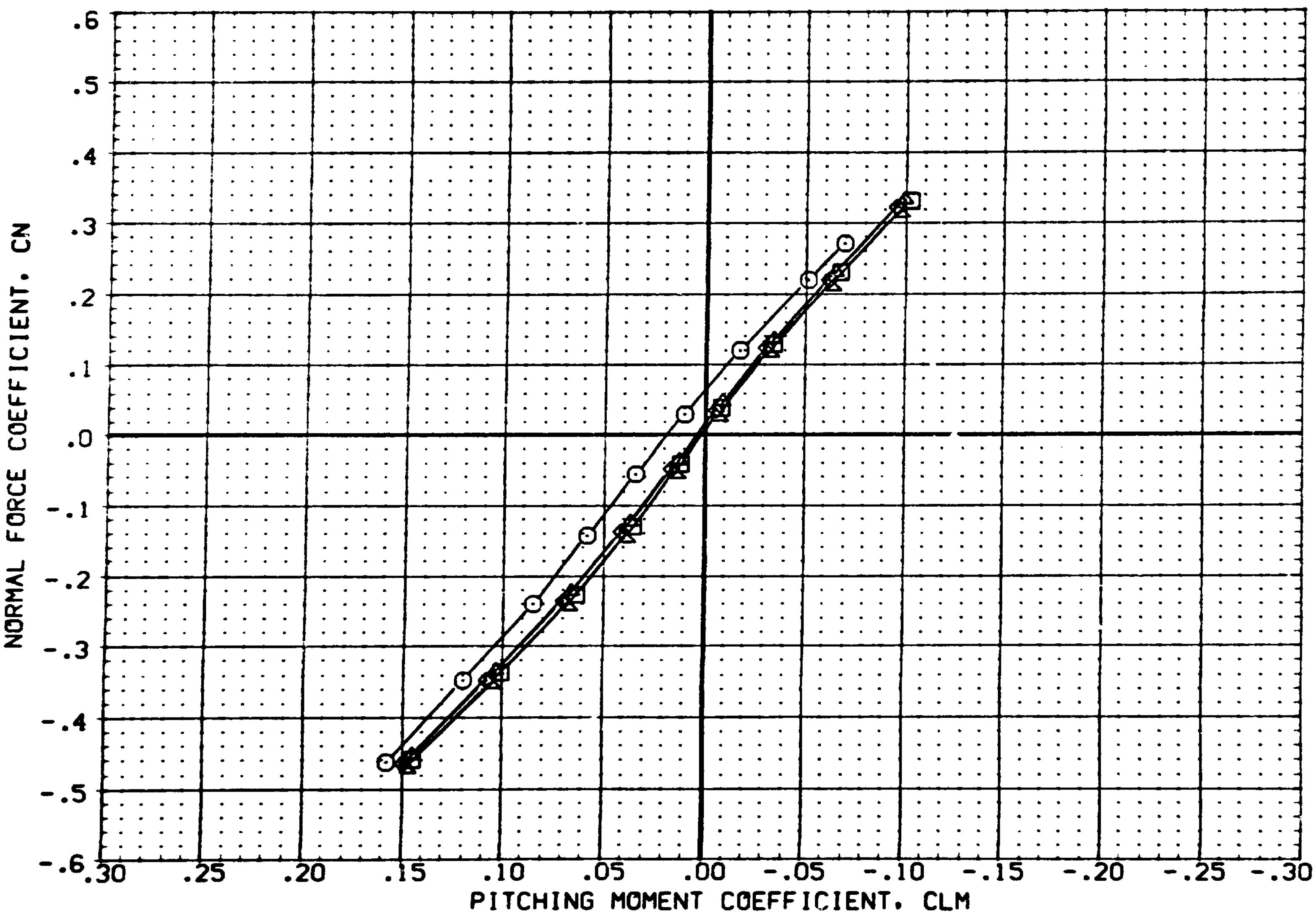


PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
0BZ037	-	AMES 87-710 IA12C 01 T1 S1	1.000			.000
0BZ099	□	AMES 87-710 IA12C 01 T1 S1	4.000	31.260	.916	1.000
0BZ134	◇	AMES 87-710 IA12C 01 T1 S1	1.000	31.260	.916	1.000
0BZ096	△	AMES 87-710 IA12C 01 T1 S1	3.000	31.260	.916	1.000
0BZ027	◺	AMES 87-710 IA12C 02 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0150	



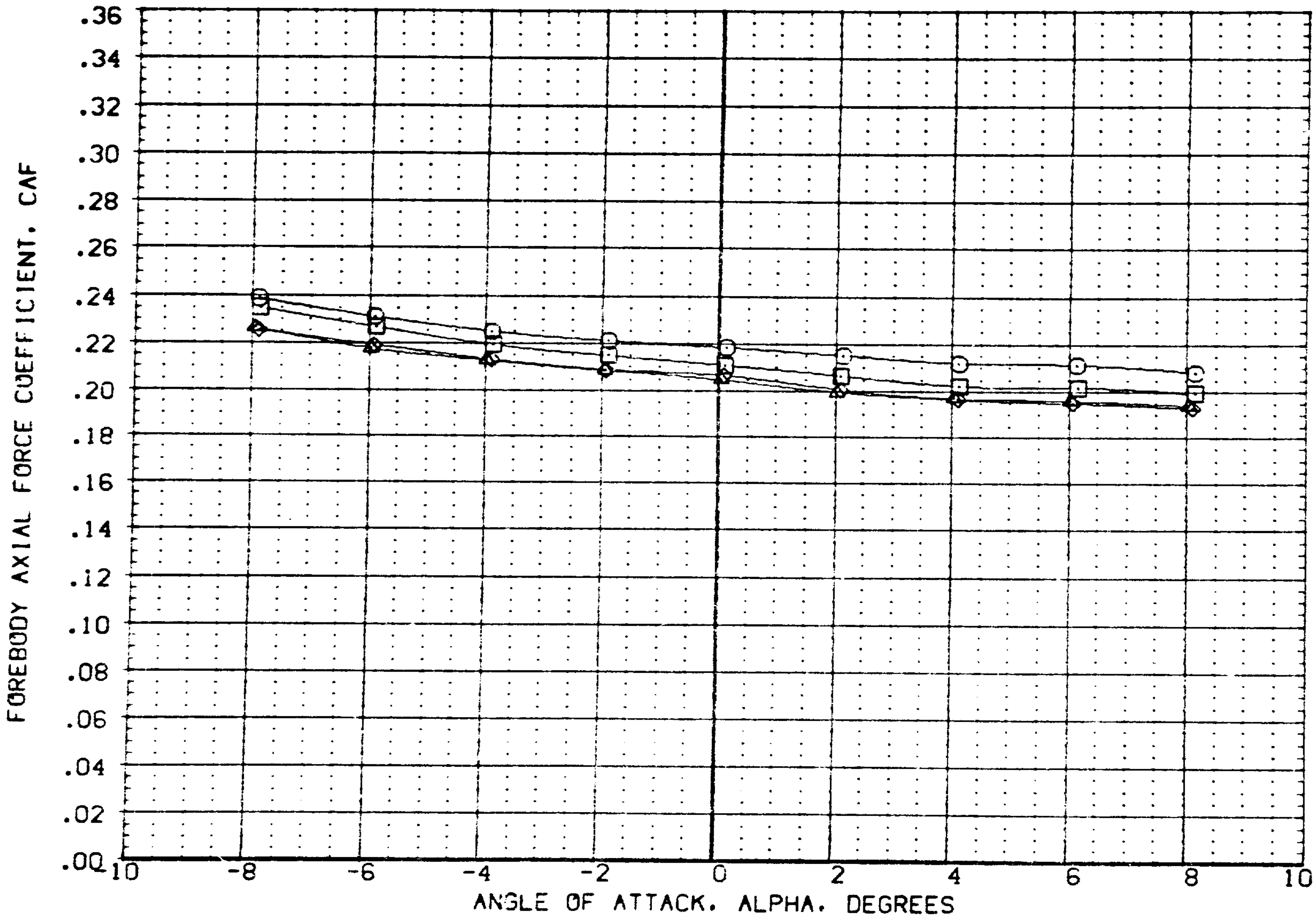
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	DPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(CBZ103)	□	AMES 87-710 IA12C 01 T1 S1	4.000	26.860	.768	1.000
(CBZ041)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	26.860	.768	1.000
(CBZ088)	△	AMES 87-710 IA12C 01 T1 S1	3.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



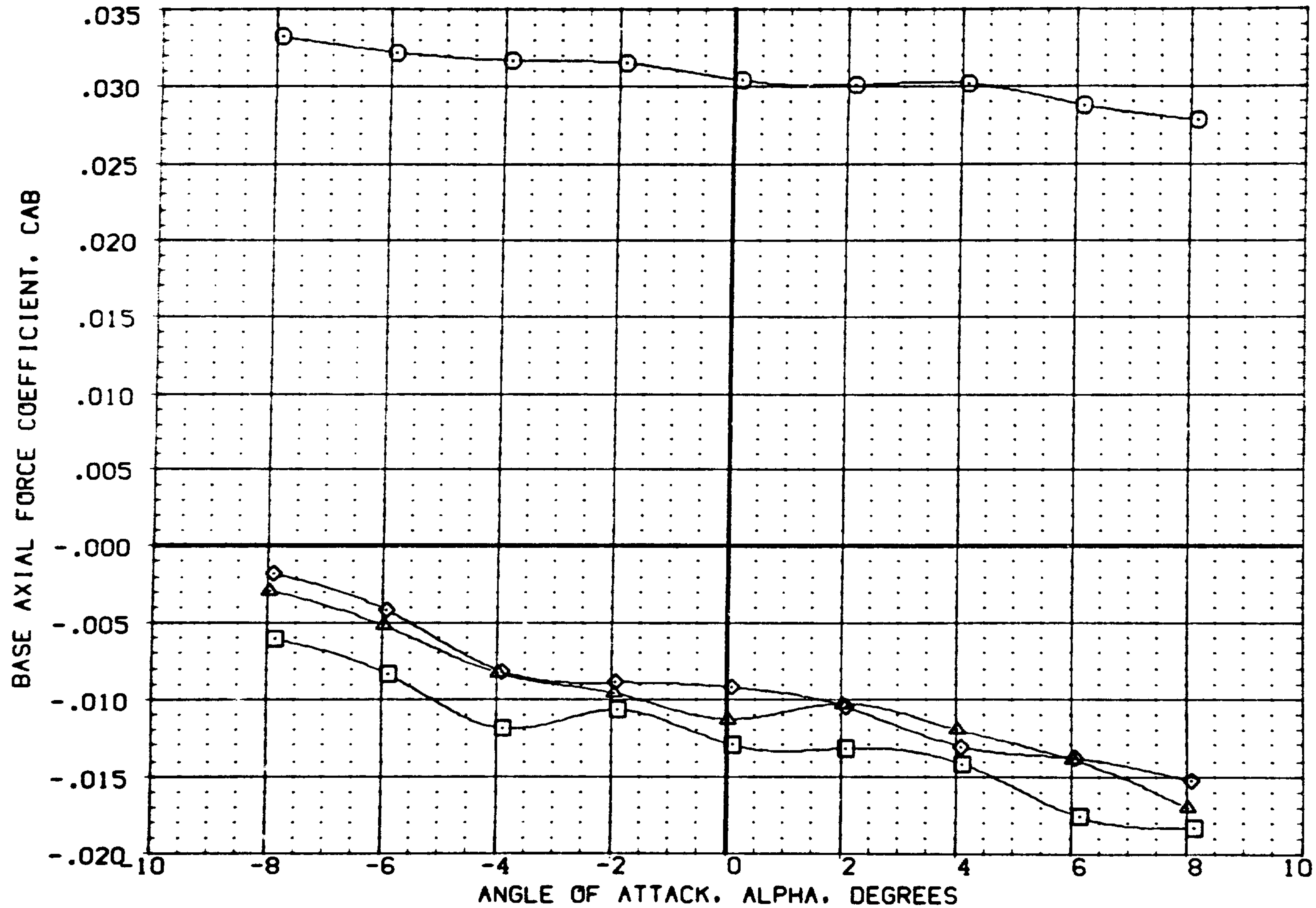
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BZ038)	○	AMES 87-710 (A12C C1 T1 S1	1.000			.000
(BZ103)	□	AMES 87-710 (A12C C1 T1 S1	4.000	26.860	.768	1.000
(BZ041)	◇	AMES 87-710 (A12C C1 T1 S1	1.000	26.860	.768	1.000
(BZ066)	△	AMES 87-710 (A12C C1 T1 S1	3.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

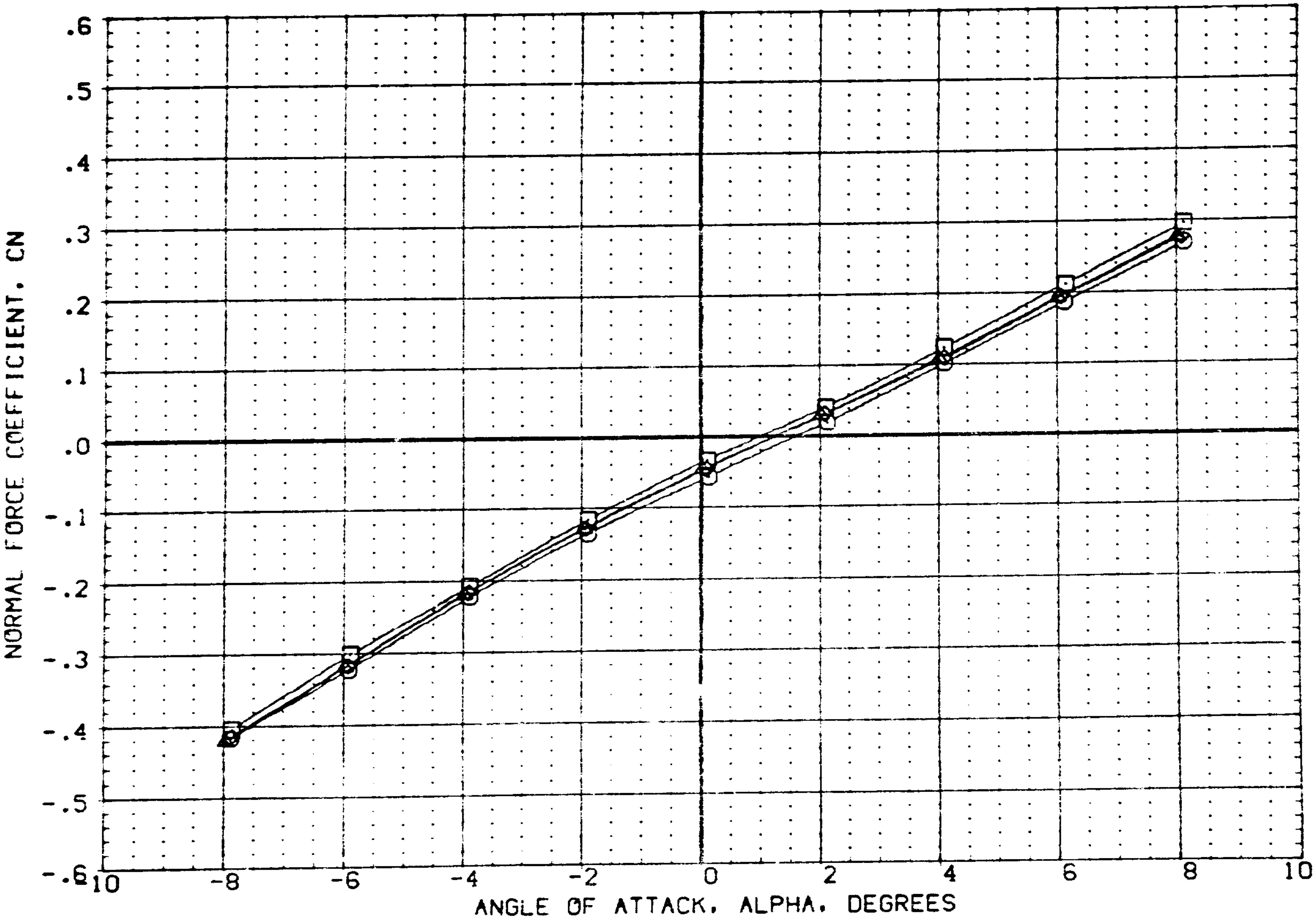
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1
(CBZ103)	□	AMES 87-710 IA12C 01 T1 S1
(CBZ241)	◇	AMES 87-710 IA12C 01 T1 S1
(CBZ089)	△	AMES 87-710 IA12C 01 T1 S1

GIMBAL	OPR	SRMPR	POWER
1.000			.000
4.000	26.860	.768	1.000
1.000	26.860	.768	1.000
3.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



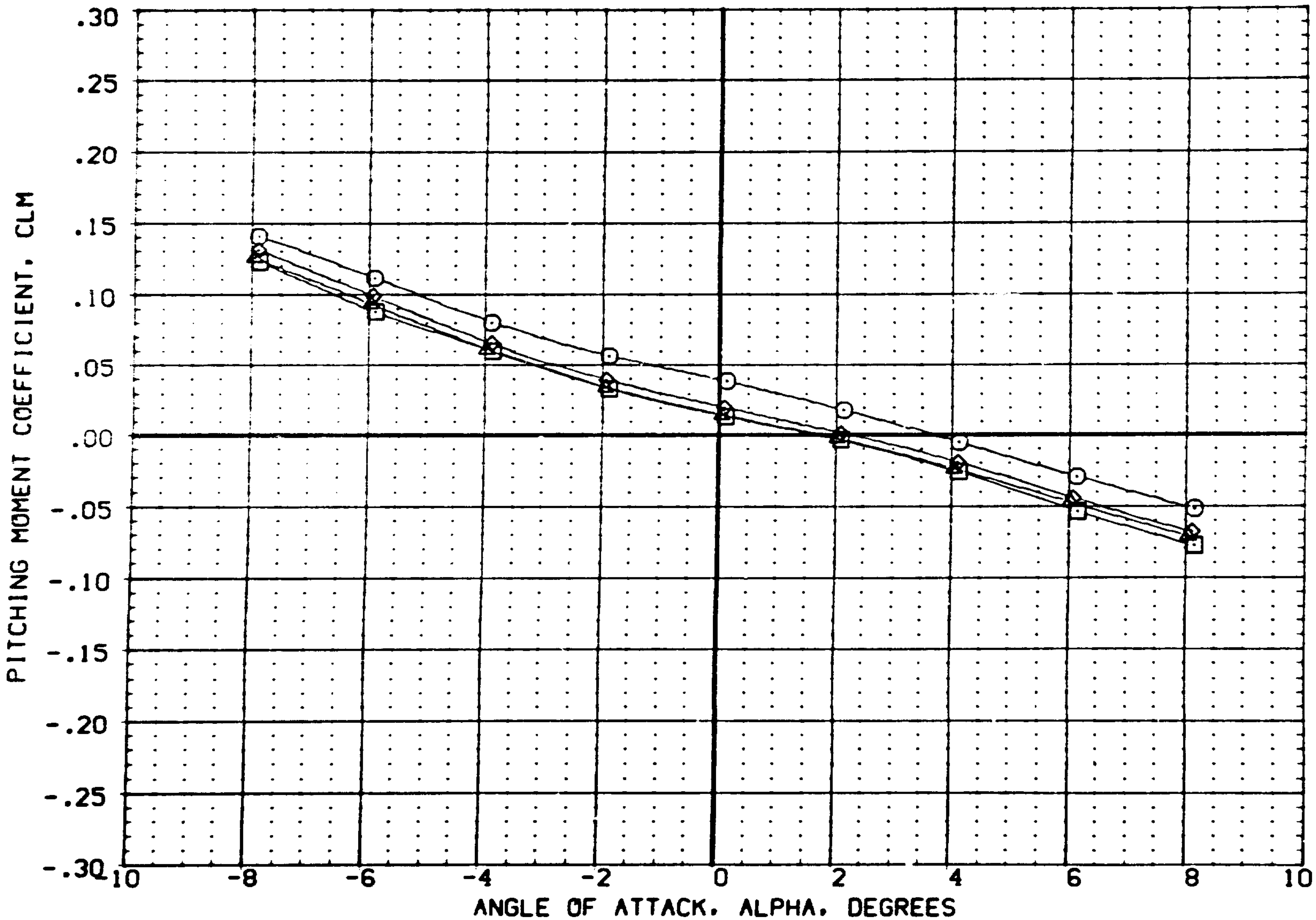
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BZ038)	○	AMES 87-710 (A12C 01 T1 S1)
(BZ103)	□	AMES 87-710 (A12C 01 T1 S1)
(BZ041)	◇	AMES 87-710 (A12C 01 T1 S1)
(BZ0[illegible])	△	AMES 87-710 (A12C 01 T1 S1)

GIMBAL	OPR	SRMPR	POWER
1.000			.000
4.000	26.860	.768	1.000
1.000	26.860	.768	1.000
3.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



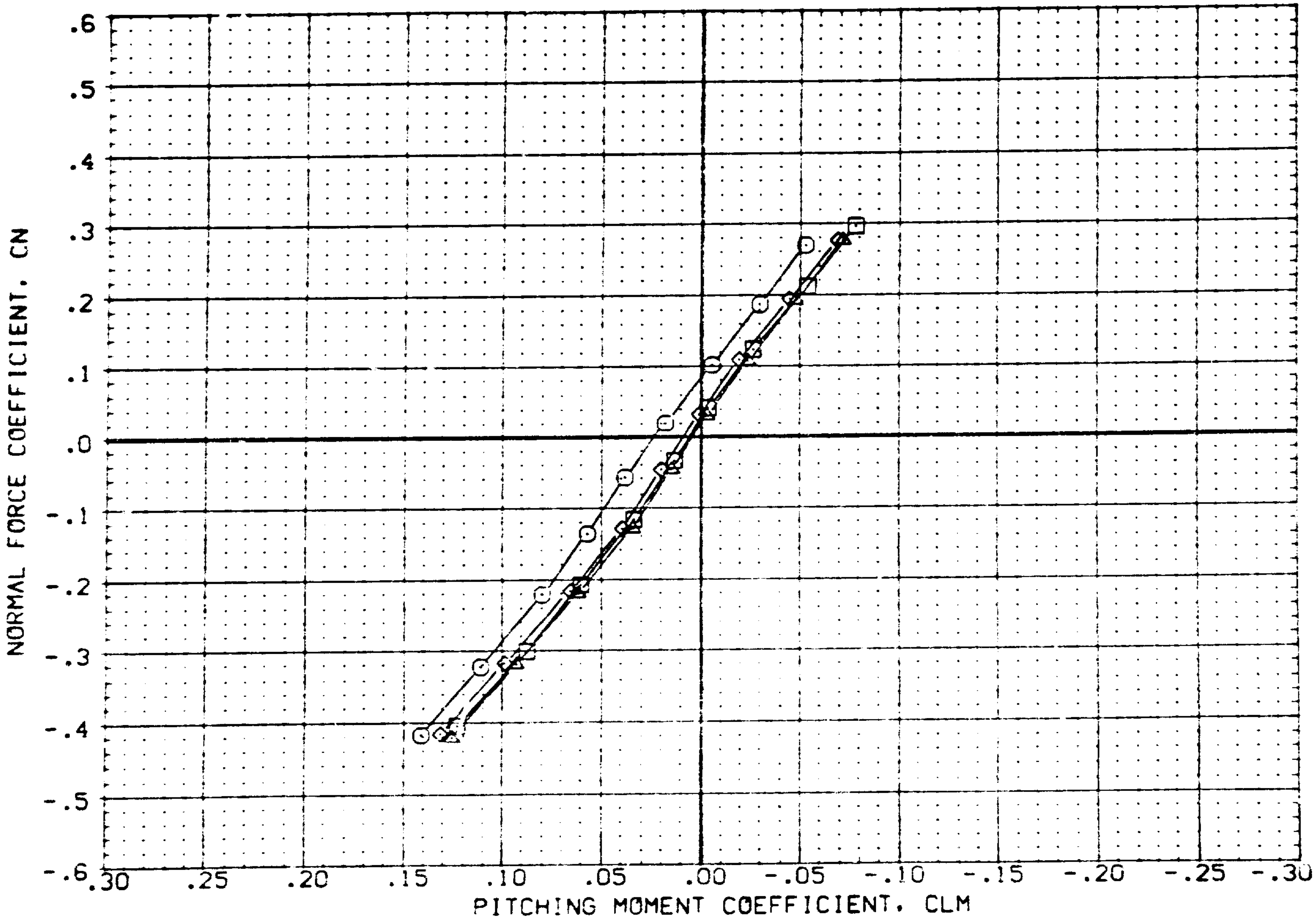
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	DPR	SRMPR	POWER
(BZ03P)	⊙	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(BZ033)	□	AMES 87-710 IA12C 01 T1 S1	4.000	26.860	.768	1.000
(BZ041)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	26.860	.768	1.000
(BZ088)	△	AMES 87-710 IA12C 01 T1 S1	3.000	26.850	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



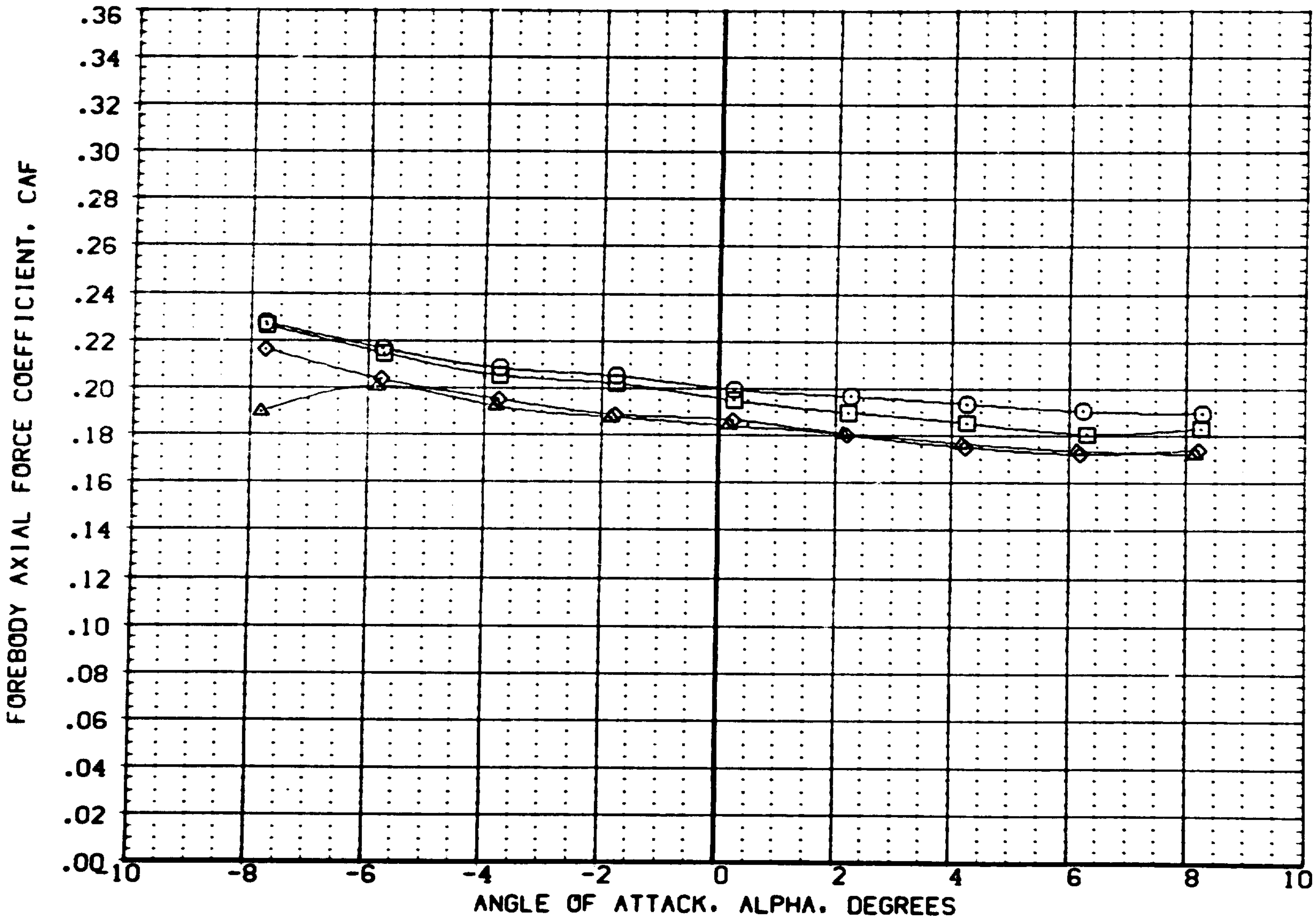
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA12C OI TI SI	1.000			.000
(BZ107)	□	AMES 87-710 IA12C OI TI SI	4.000	23.860	.826	1.000
(BZ050)	◇	AMES 87-710 IA12C OI TI SI	1.000	23.860	.826	1.000
(BZ092)	△	AMES 87-710 IA12C OI TI SI	3.000	23.860	.826	1.000

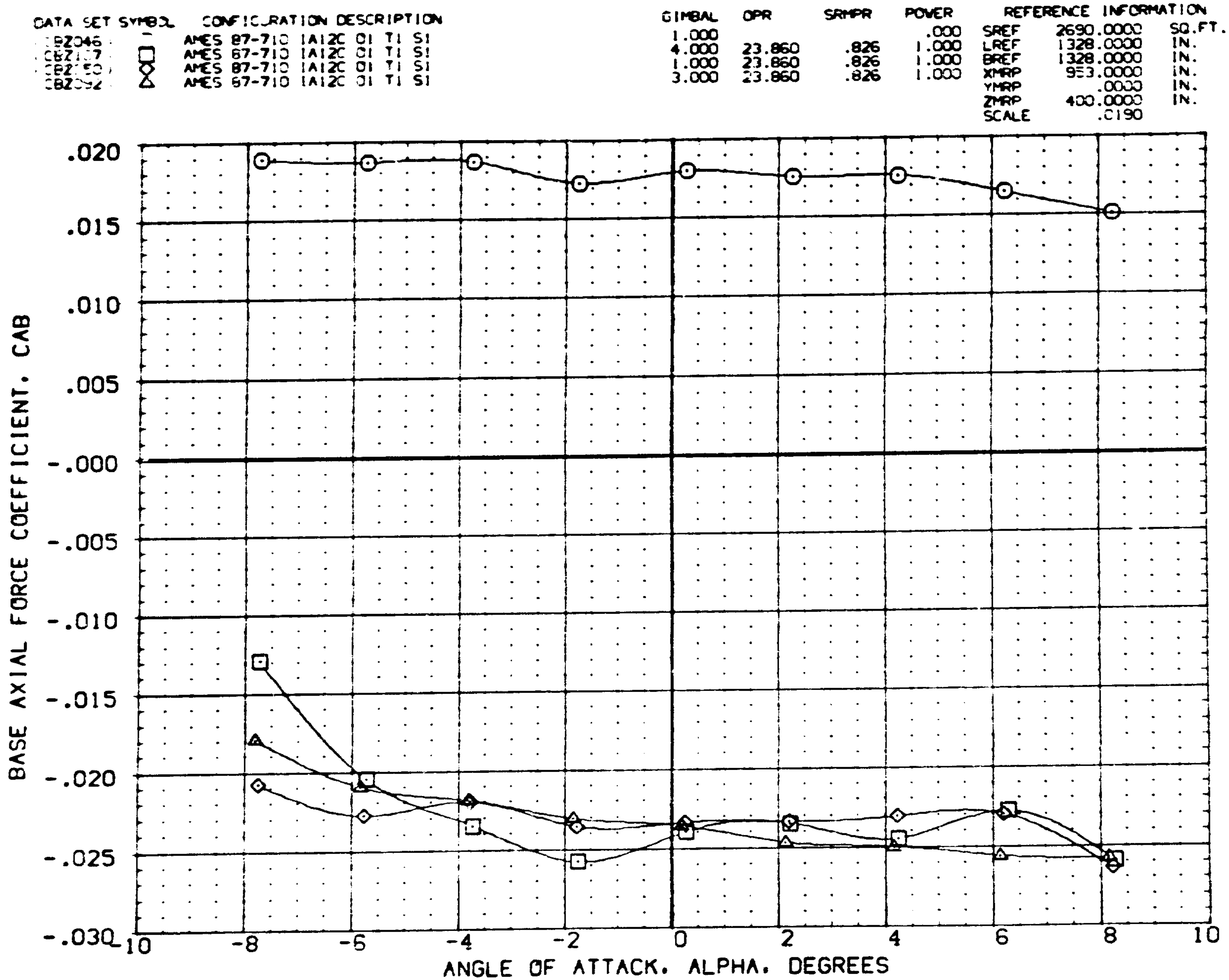
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



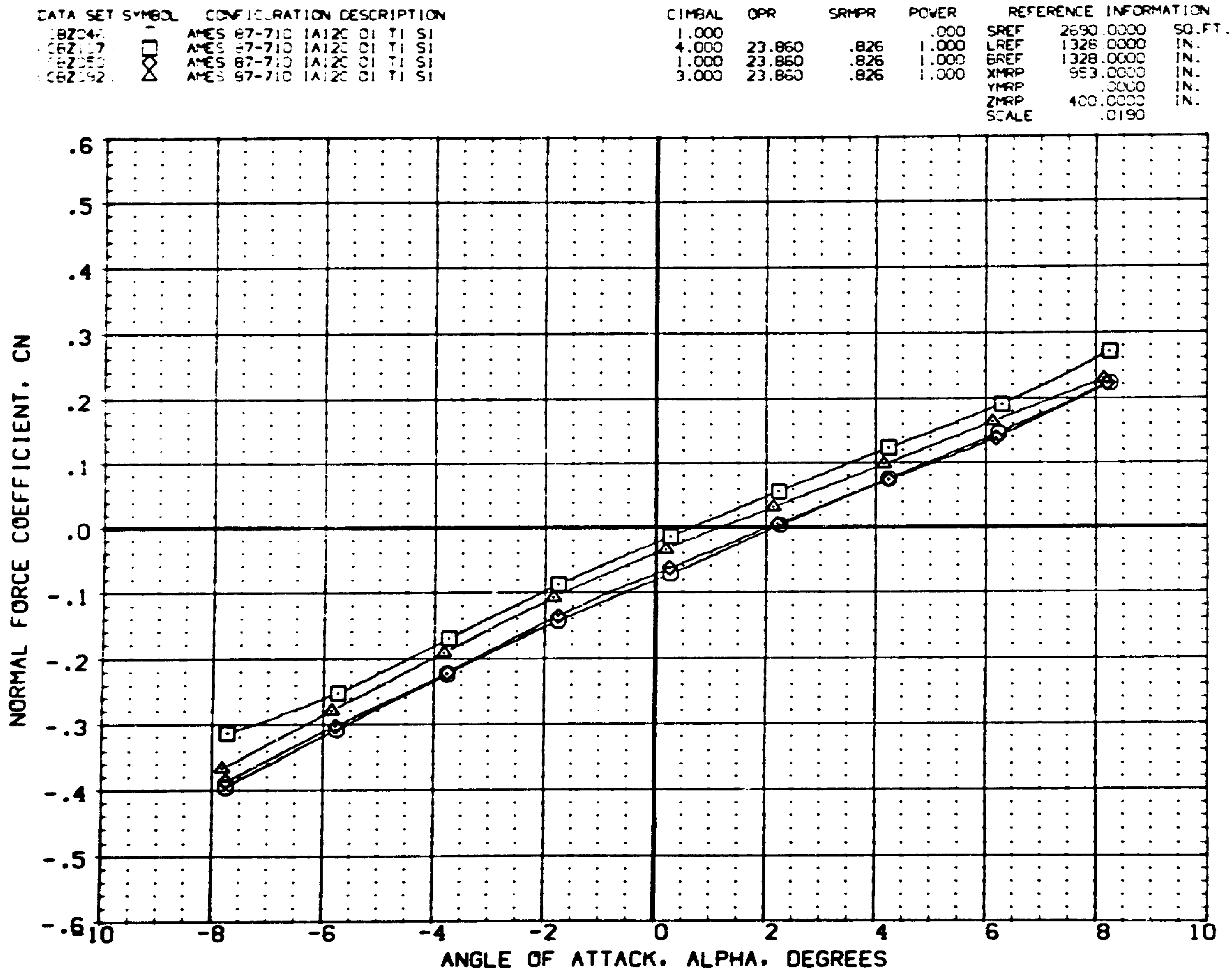
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



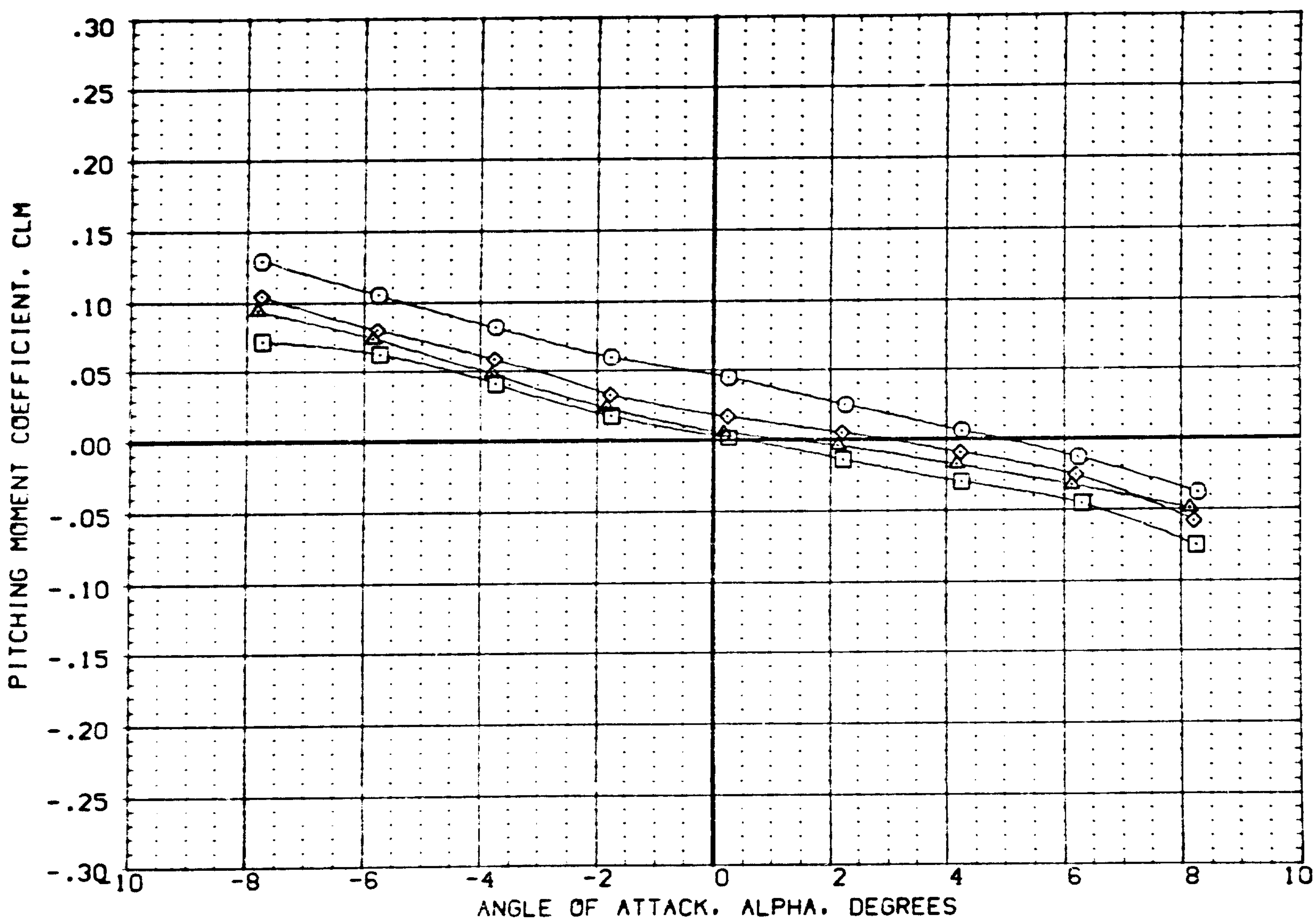
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(CBZ107)	□	AMES 87-710 IA12C 01 T1 S1	4.000	23.860	.826	1.000
(CBZ050)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	23.860	.826	1.000
(CBZ032)	△	AMES 87-710 IA12C 01 T1 S1	3.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
CBZ046	⊙	AMES 87-710 IA12C 01 T1 S1	1.000			.000
CBZ117	⊡	AMES 87-710 IA12C 01 T1 S1	4.000	23.860	.826	1.000
CBZ[illegible]	◇	AMES 87-710 IA12C 01 T1 S1	1.000	23.860	.826	1.000
[illegible]Z092	△	AMES 87-710 IA12C 01 T1 S1	3.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
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YMRP	.0000	IN.
ZMRP	400.0000	IN.
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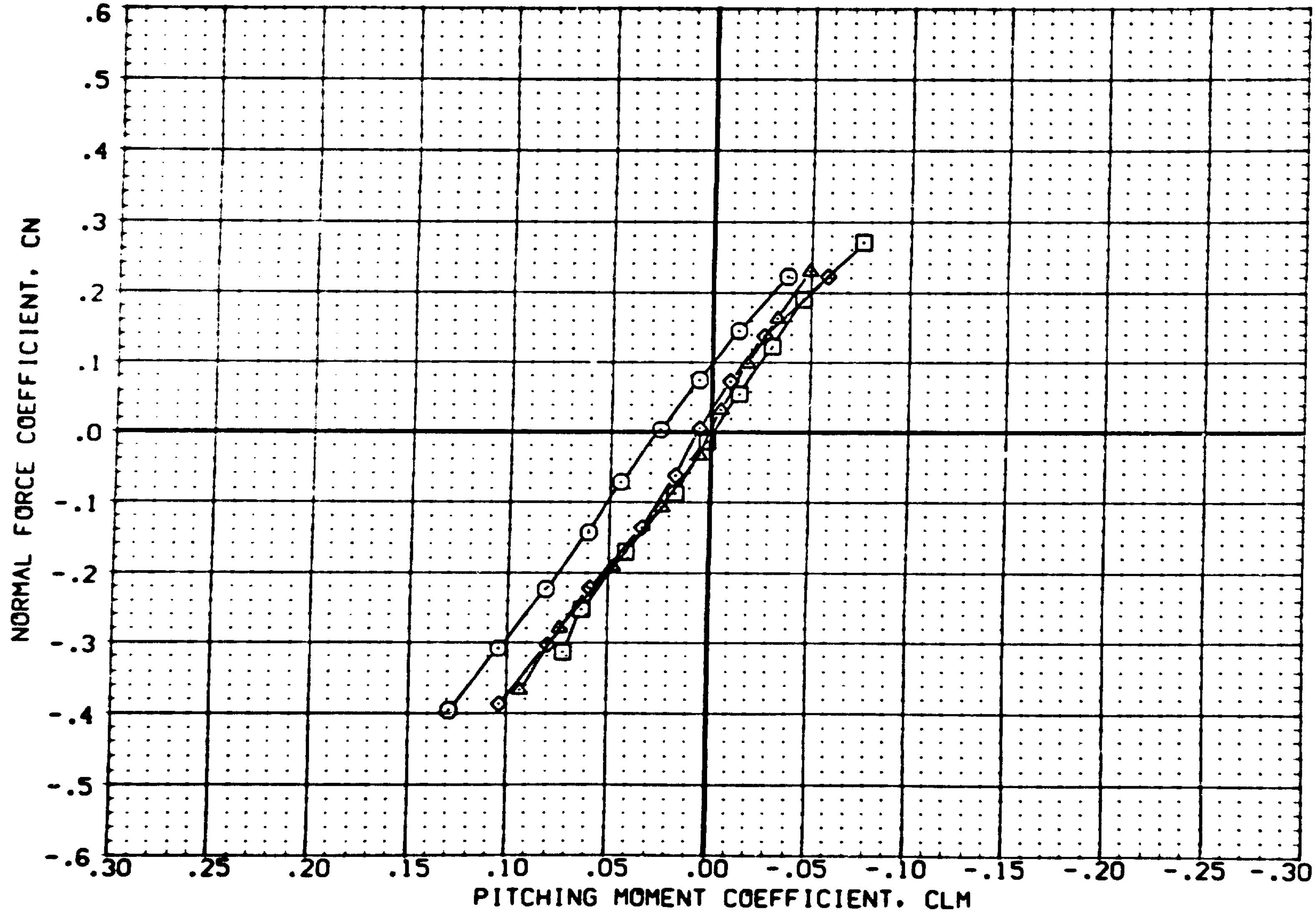
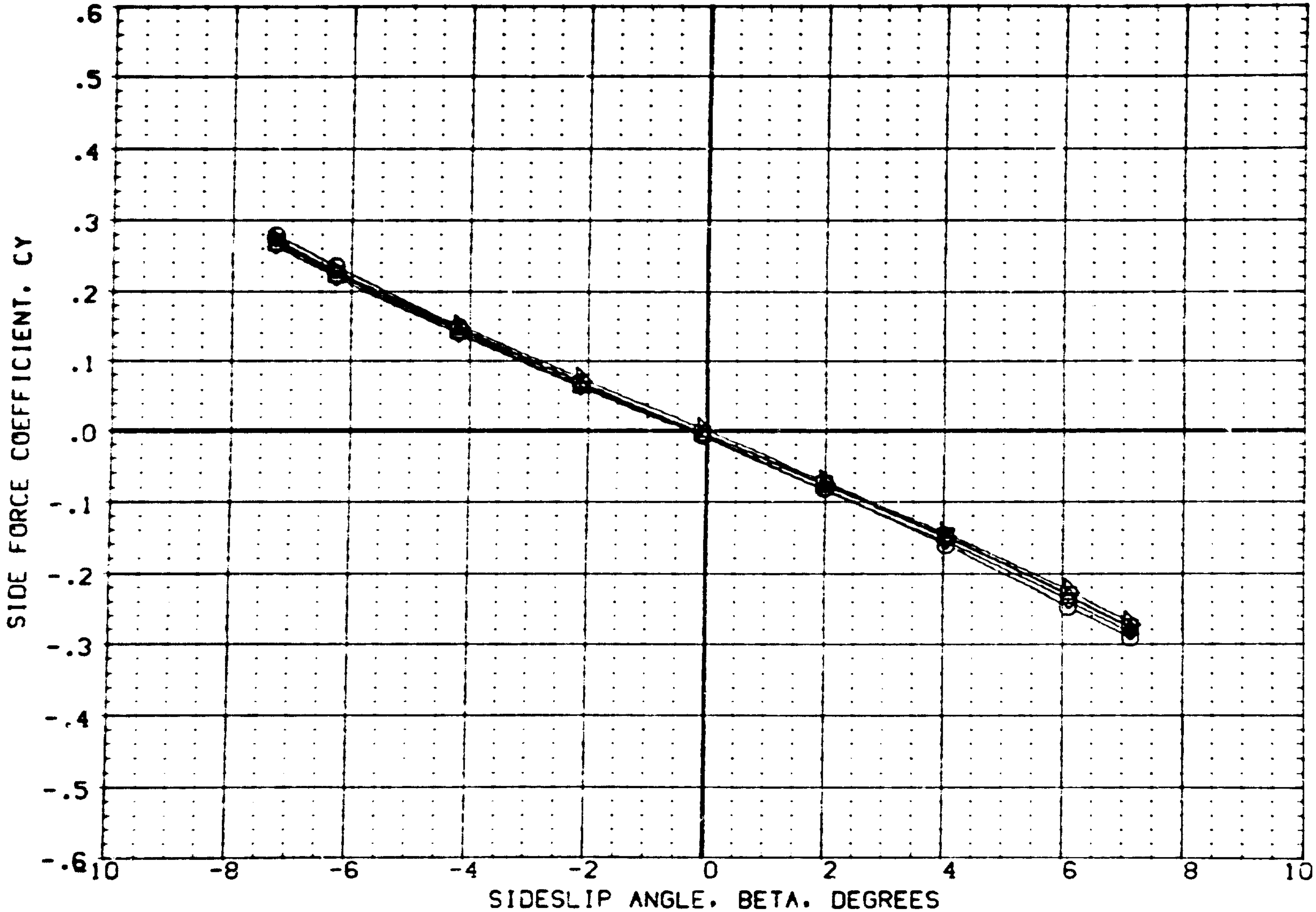


PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BBZ032)	—	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(BBZ100)	□	AMES 87-710 IA12C 01 T1 S1	4.000	31.260	.916	1.000
(BBZ033)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	31.260	.916	1.000
(BBZ095)	△	AMES 87-710 IA12C 01 T1 S1	3.000	31.260	.916	1.000
(BBZ025)	◺	AMES 87-710 IA12C 02 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

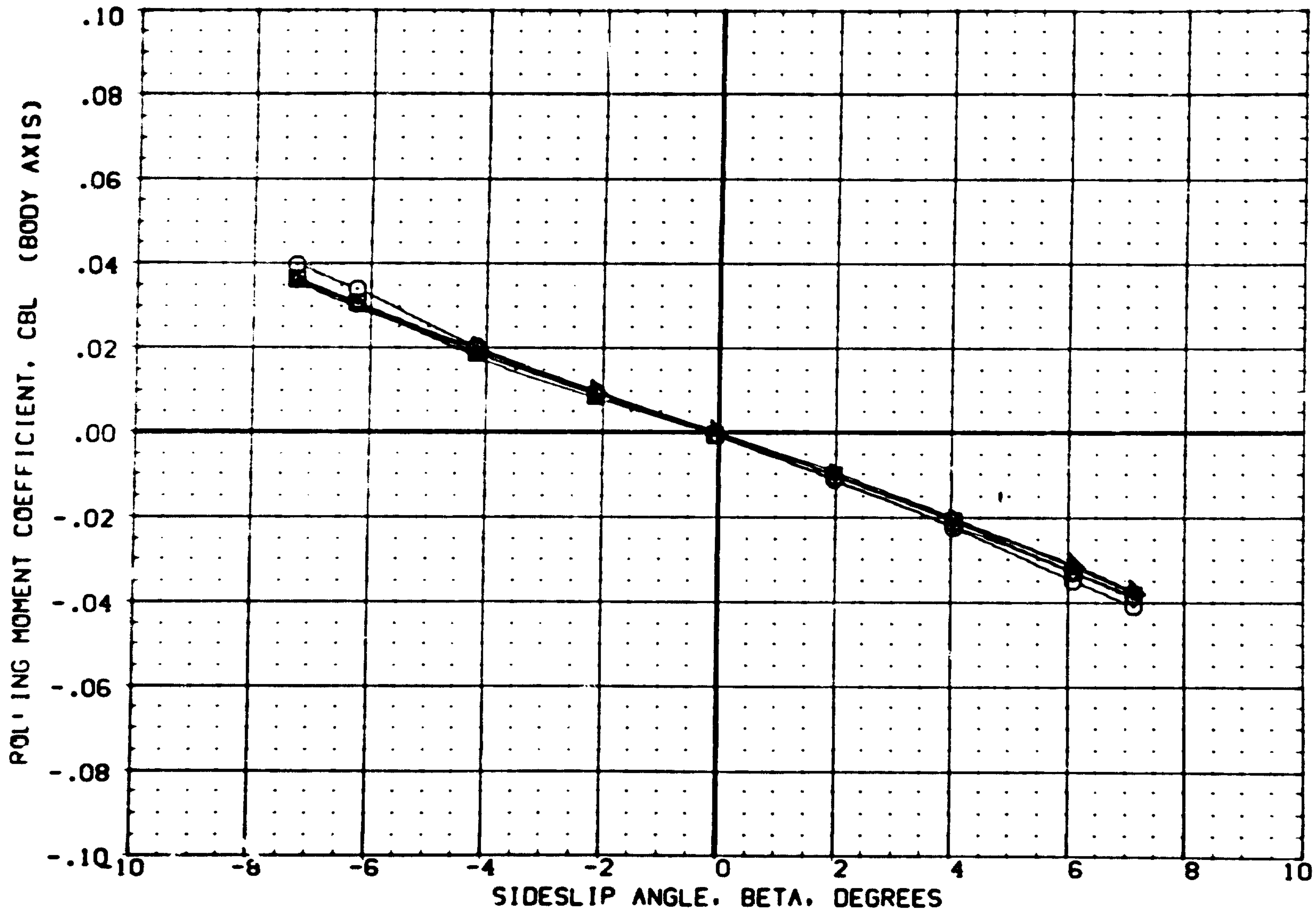


PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

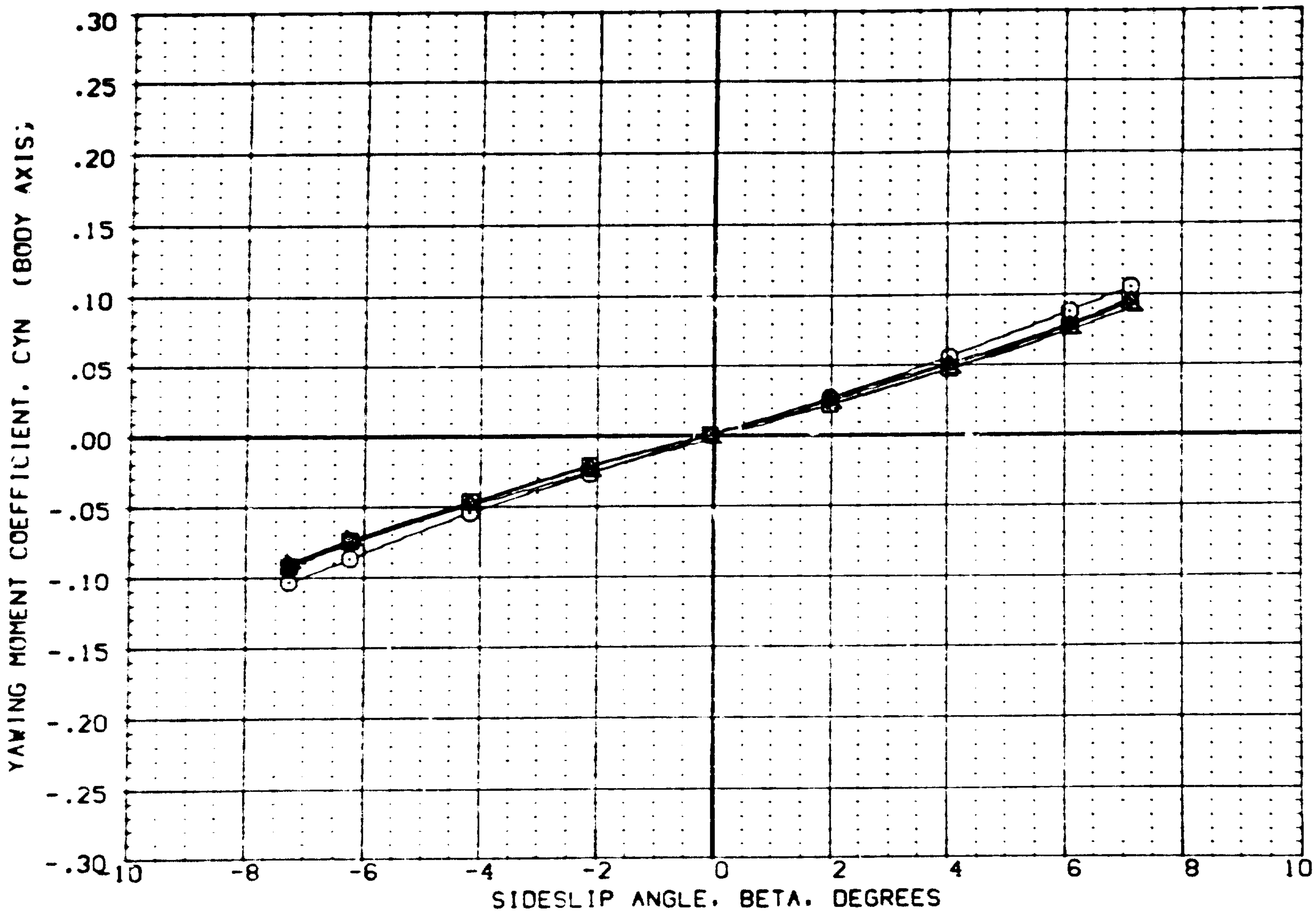
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
BBZ032	–	AMES 87-710 IA12C O1 T1 S1	1.000			.000
BBZ	□	AMES 87-710 IA12C O1 T1 S1	4.000	31.260	.916	1.000
BBZ	◇	AMES 87-710 IA12C O1 T1 S1	1.000	31.260	.916	1.000
BBZ095	△	AMES 87-710 IA12C O1 T1 S1	3.000	31.260	.916	1.000
BBZ	◁	AMES 87-710 IA12C O2 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50



DATA SET	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
6BZ032	AMES 87-710 IA12C 01 T1 S1	1.000			.000
6BZ100	AMES 87-710 IA12C 01 T1 S1	4.000	31.260	.916	1.000
6BZ033	AMES 87-710 IA12C 01 T1 S1	1.000	31.260	.916	1.000
6BZ095	AMES 87-710 IA12C 01 T1 S1	3.000	31.260	.916	1.000
6BZ028	AMES 87-710 IA12C 02 T1 S1	2.000	31.260	.916	1.000

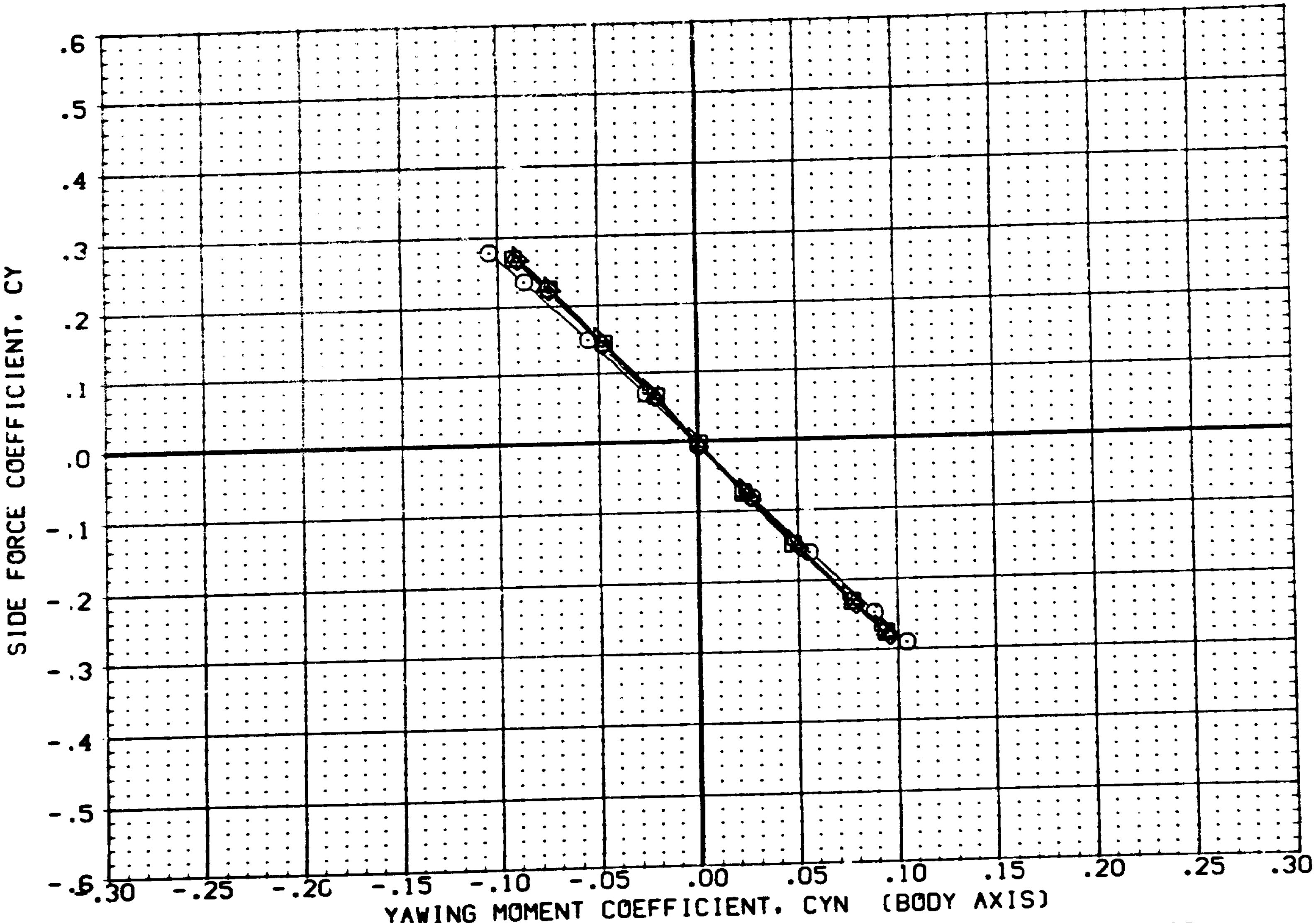
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A) MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
BBZ032	○	AMES 87-710 IA120 01 T1 S1	1.000			.000
BBZ100	□	AMES 87-710 IA120 01 T1 S1	4.000	31.260	.916	1.000
BBZ033	◇	AMES 87-710 IA120 01 T1 S1	1.000	31.260	.916	1.000
BBZ0[illegible]	△	AMES 87-710 IA120 01 T1 S1	3.000	31.260	.916	1.000
BBZ028	◁	AMES 87-710 IA120 02 T1 S1	2.000	31.260	.916	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



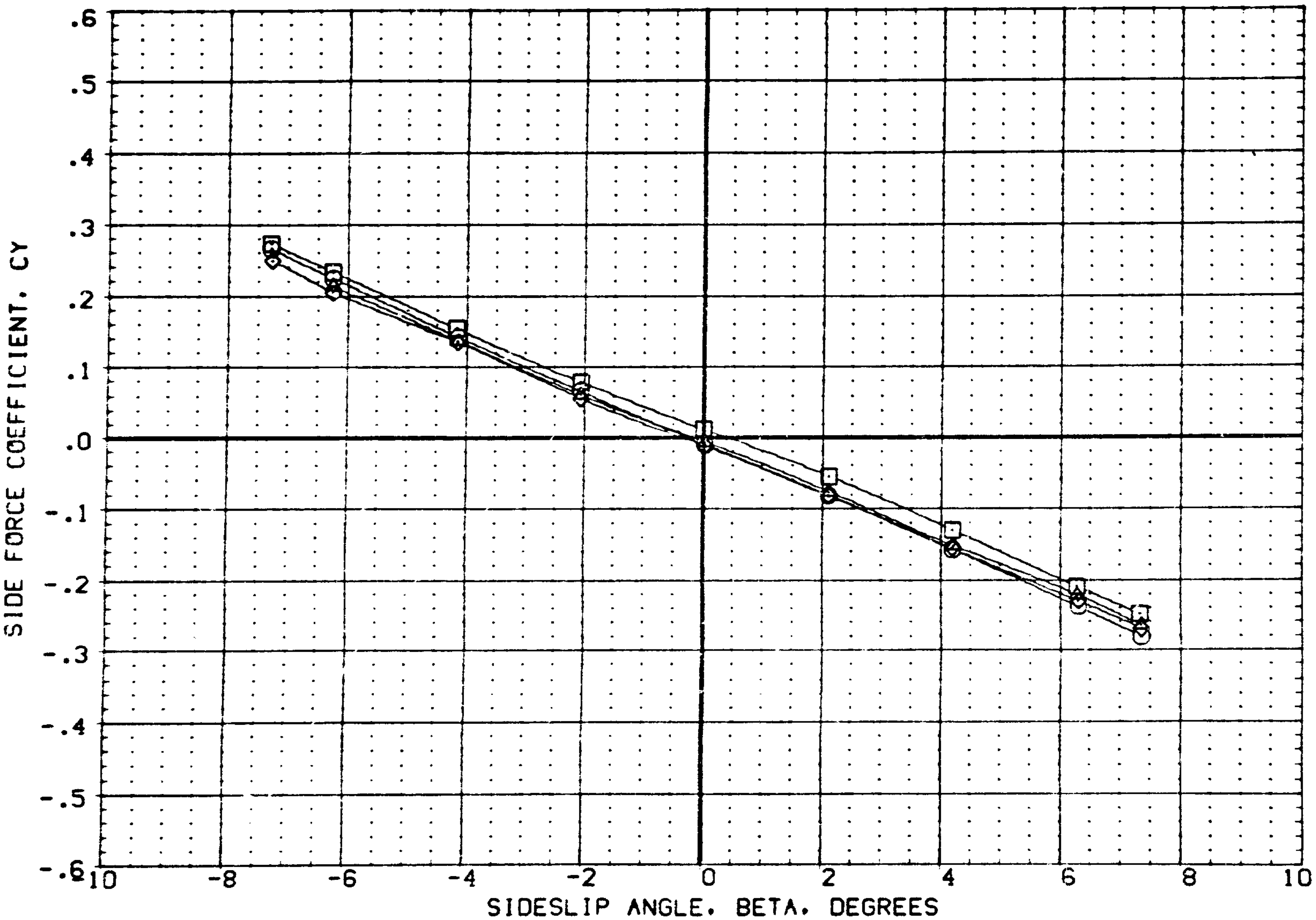
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C C1 T1 S1	1.000			.000
(BBZ104)	□	AMES 87-710 IA12C 01 T1 S1	4.000	26.860	.768	1.000
(BBZ040)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	26.860	.768	1.000
(BBZ087)	△	AMES 87-710 IA12C 01 T1 S1	3.000	26.860	.768	1.000

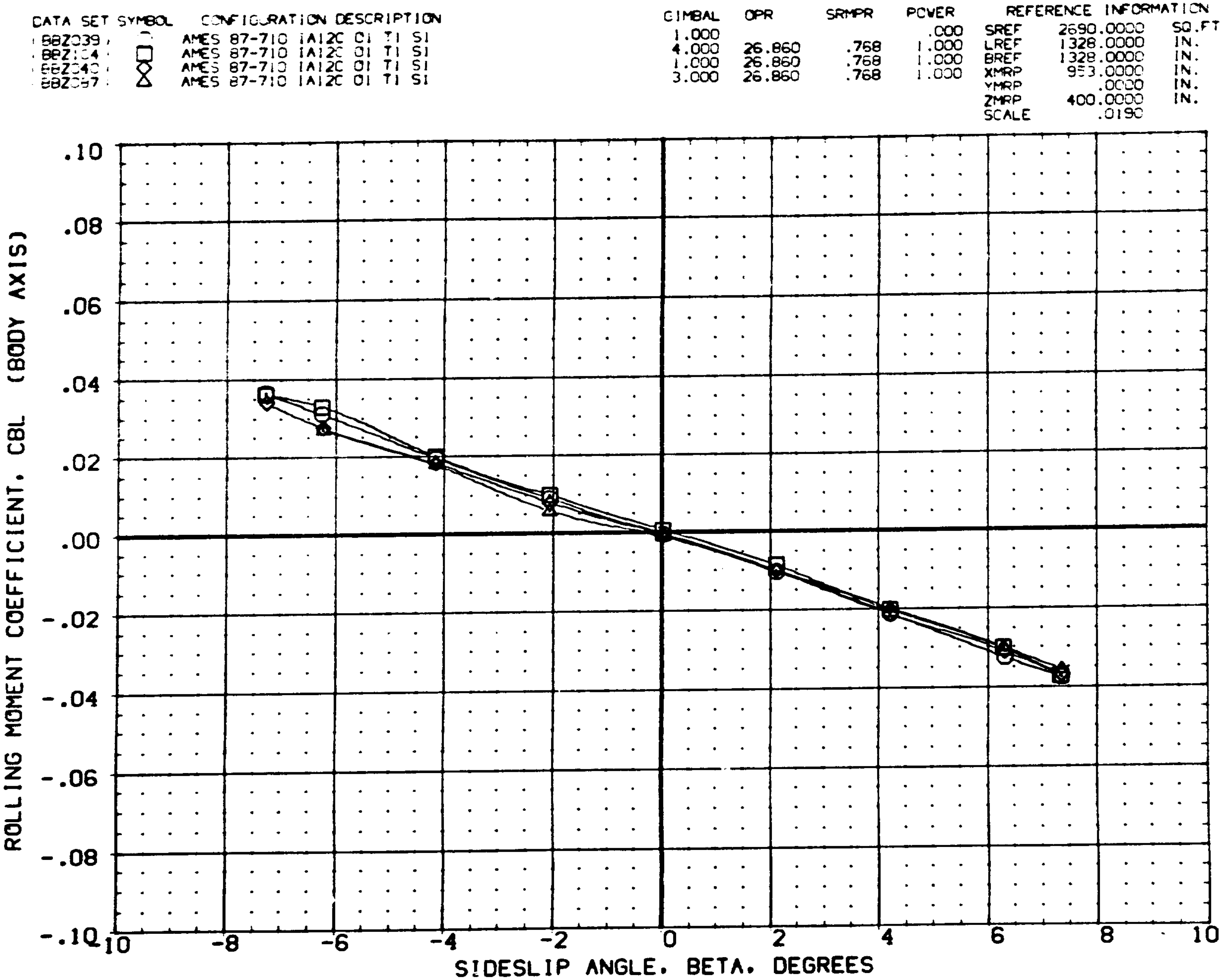
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

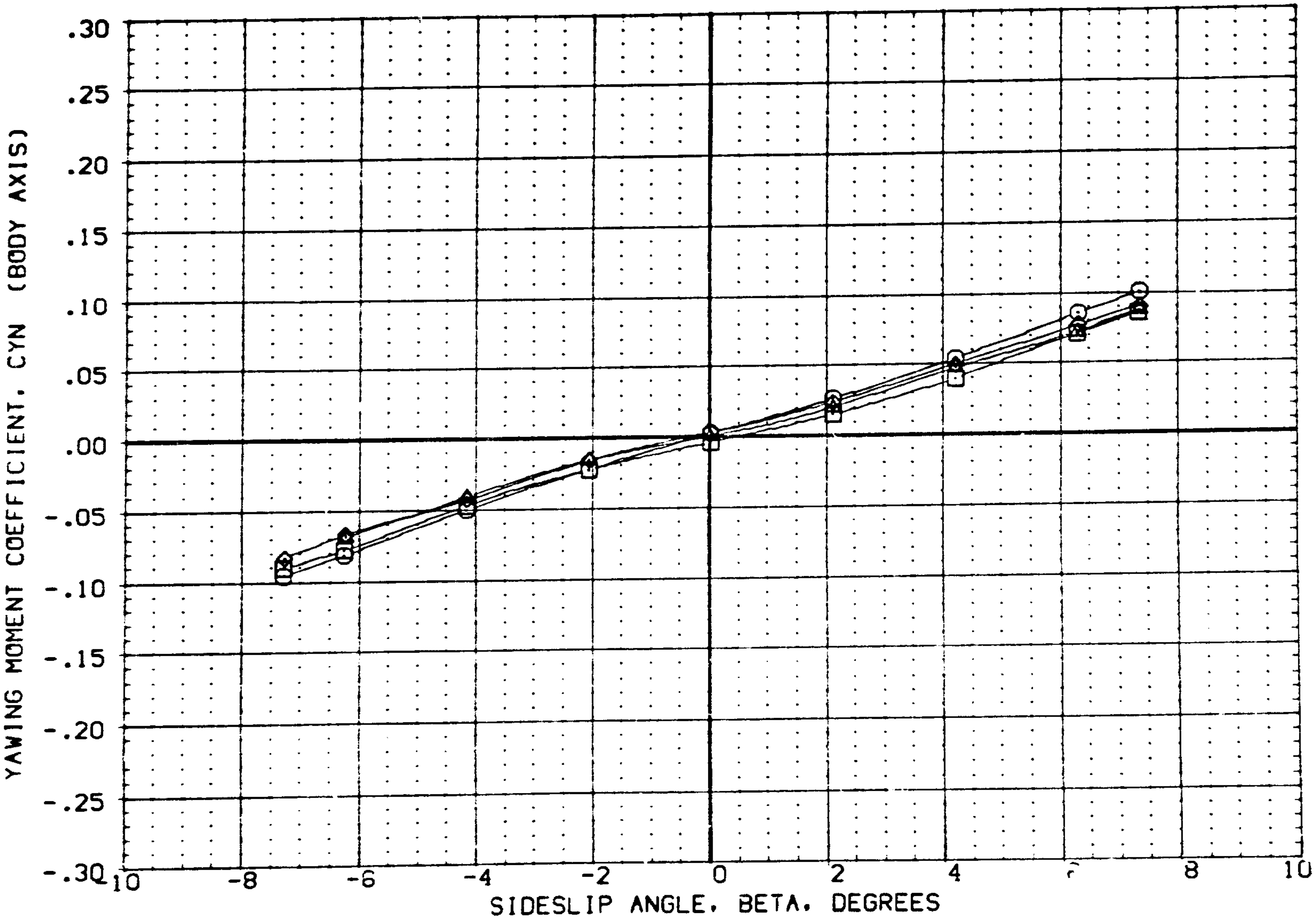


PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C O1 T1 S1	1.000			.000
(BBZ104)	□	AMES 87-710 IA12C O1 T1 S1	4.000	26.860	.768	1.000
(BBZ040)	◇	AMES 87-710 IA12C O1 T1 S1	1.000	26.860	.768	1.000
(BBZ087)	△	AMES 87-710 IA12C O1 T1 S1	3.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



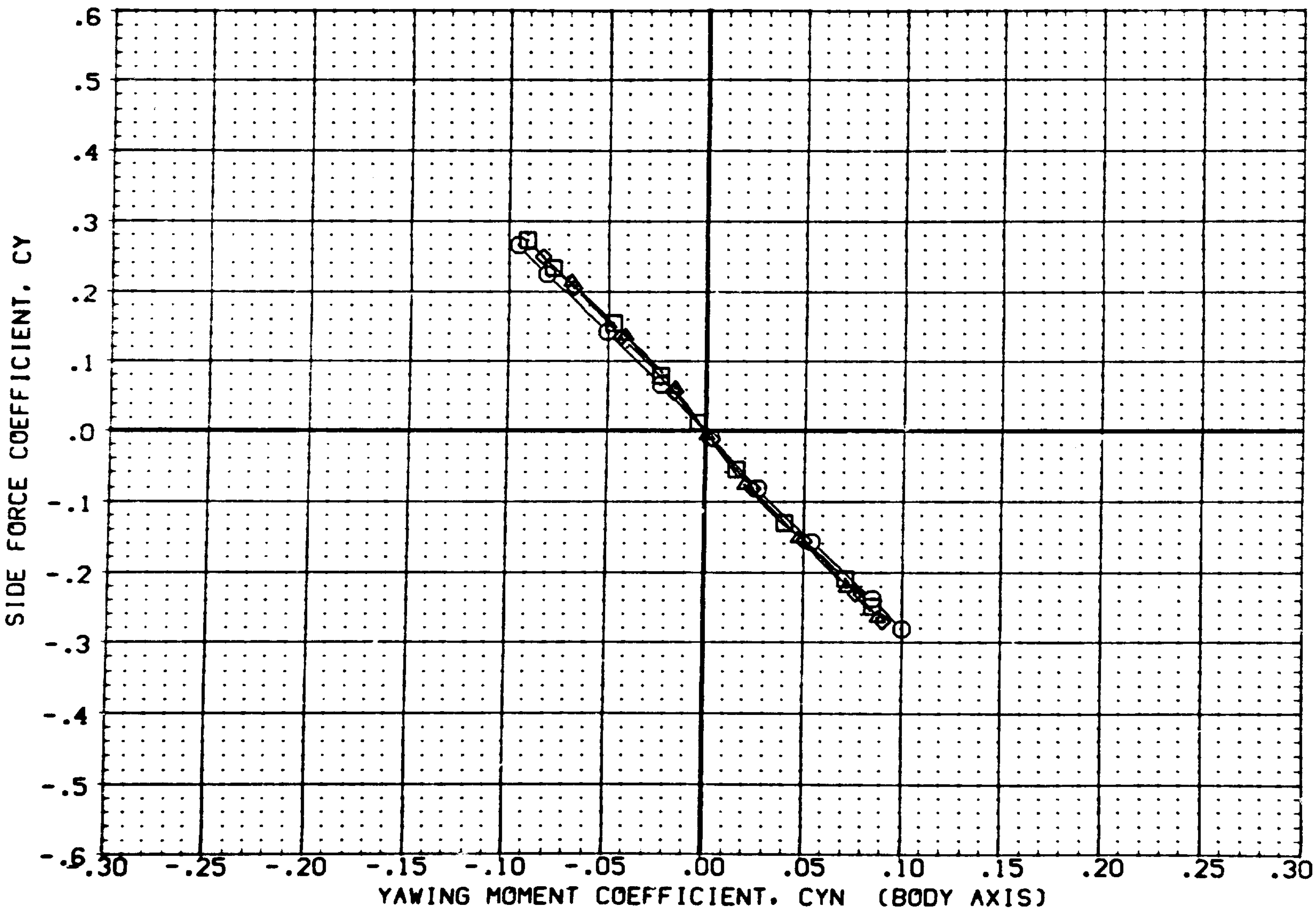
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(5BZ039)	○	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(5BZ104)	□	AMES 87-710 IA12C 01 T1 S1	4.000	26.860	.768	1.000
(5BZ040)	◇	AMES 87-710 IA12C 01 T1 S1	1.000	26.860	.768	1.000
(5BZ087)	△	AMES 87-710 IA12C 01 T1 S1	3.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(BBZ047)	○	AMES 87-710 IA12C 01 T1 S1
(BBZ108)	□	AMES 87-710 IA12C 01 T1 S1
(BBZ051)	◇	AMES 87-710 IA12C 01 T1 S1
(BBZ091)	△	AMES 87-710 IA12C 01 T1 S1

GIMBAL	OPR	SRMPR	POWER
1.000			.000
4.000	23.860	.826	1.000
1.000	23.860	.826	1.000
3.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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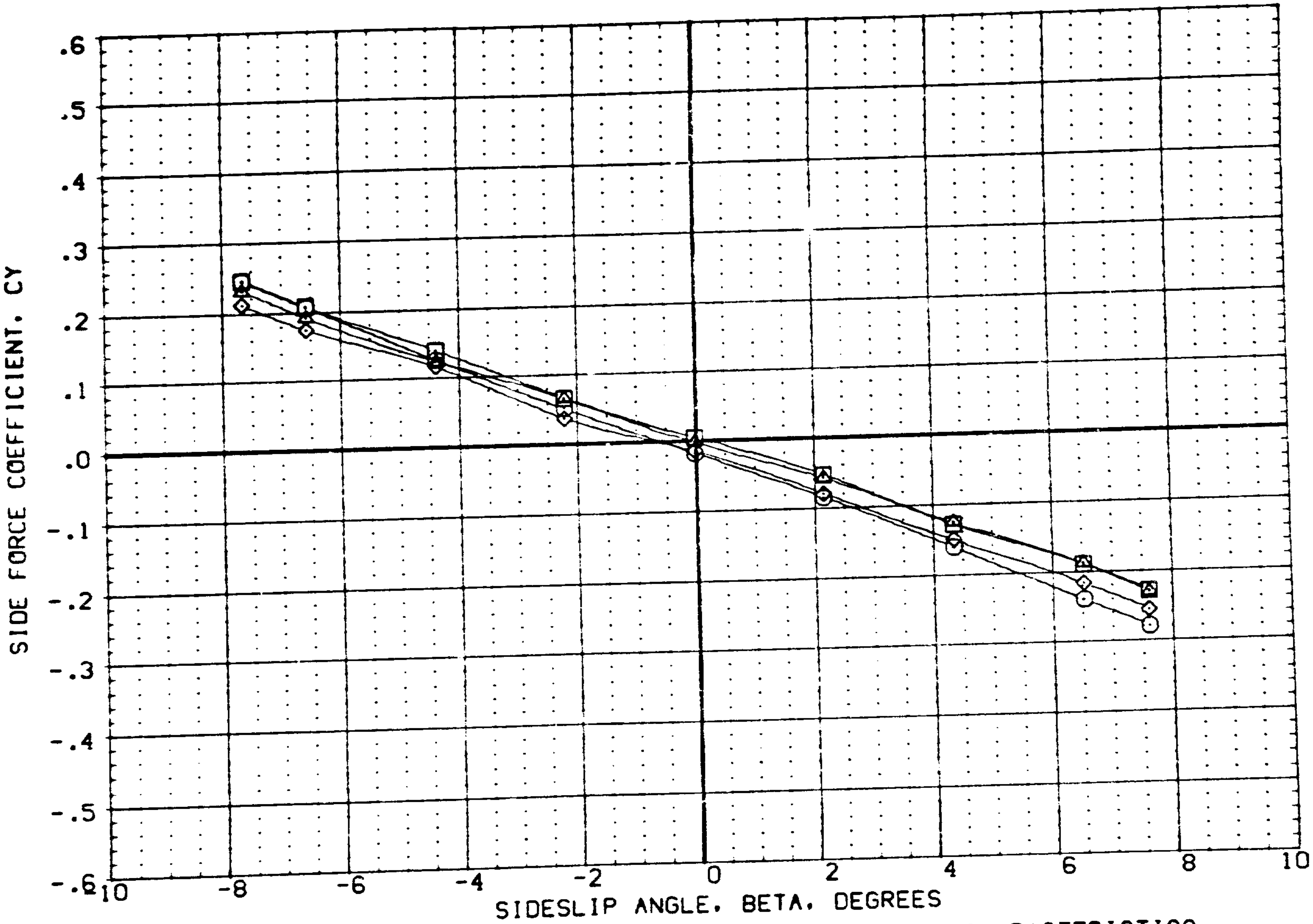

PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BBZ047	—	AMES 87-710 IA12C 01 T1 S1
BBZ108	□	AMES 87-710 IA12C 01 T1 S1
BBZ051	◇	AMES 87-710 IA12C 01 T1 S1
BBZ0[illegible]	△	AMES 87-710 IA12C 01 T1 S1

GIMBAL	OPR	SRMPR	POWER
1.000			.000
4.000	23.860	.826	1.000
1.000	23.860	.826	1.000
3.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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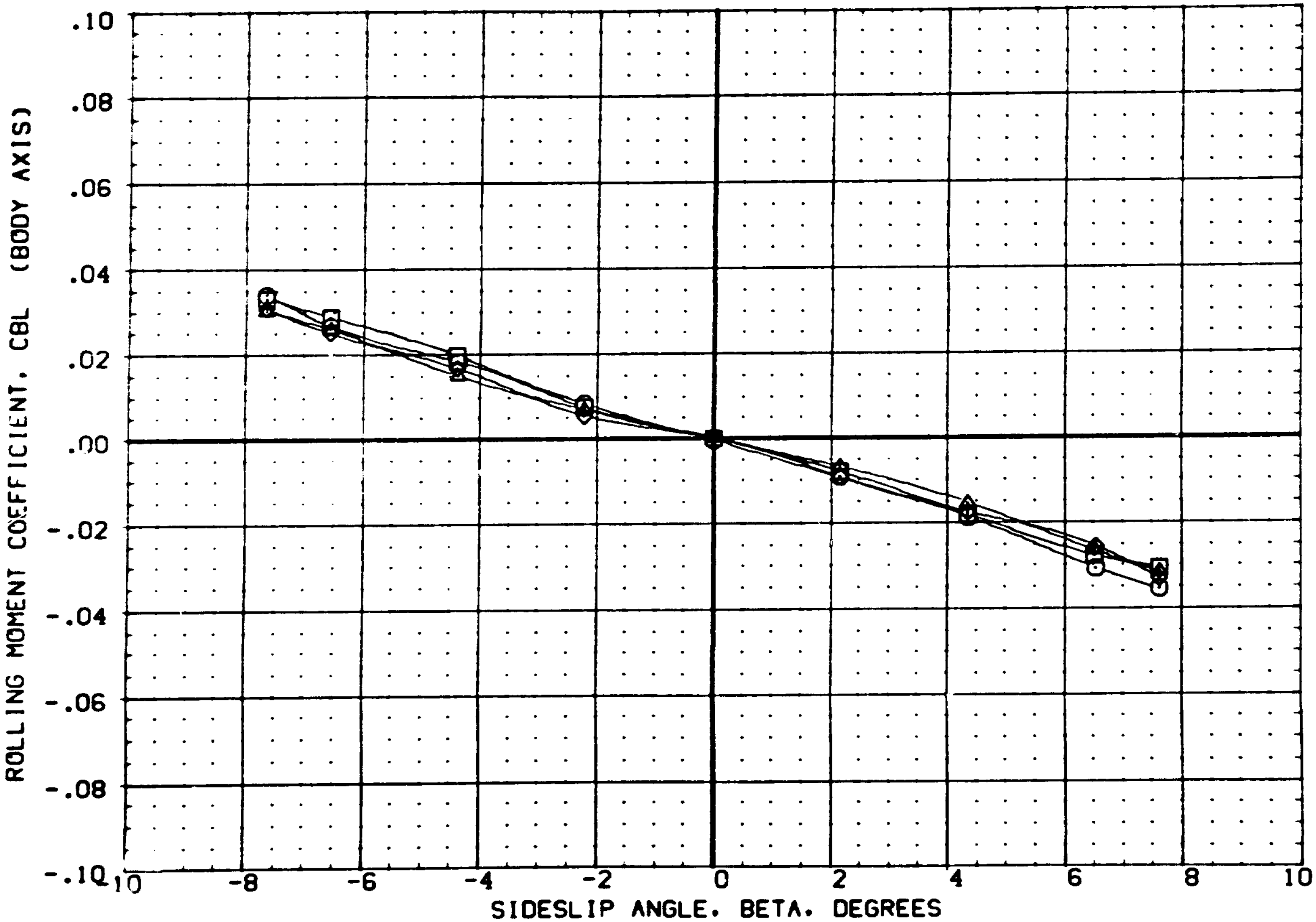


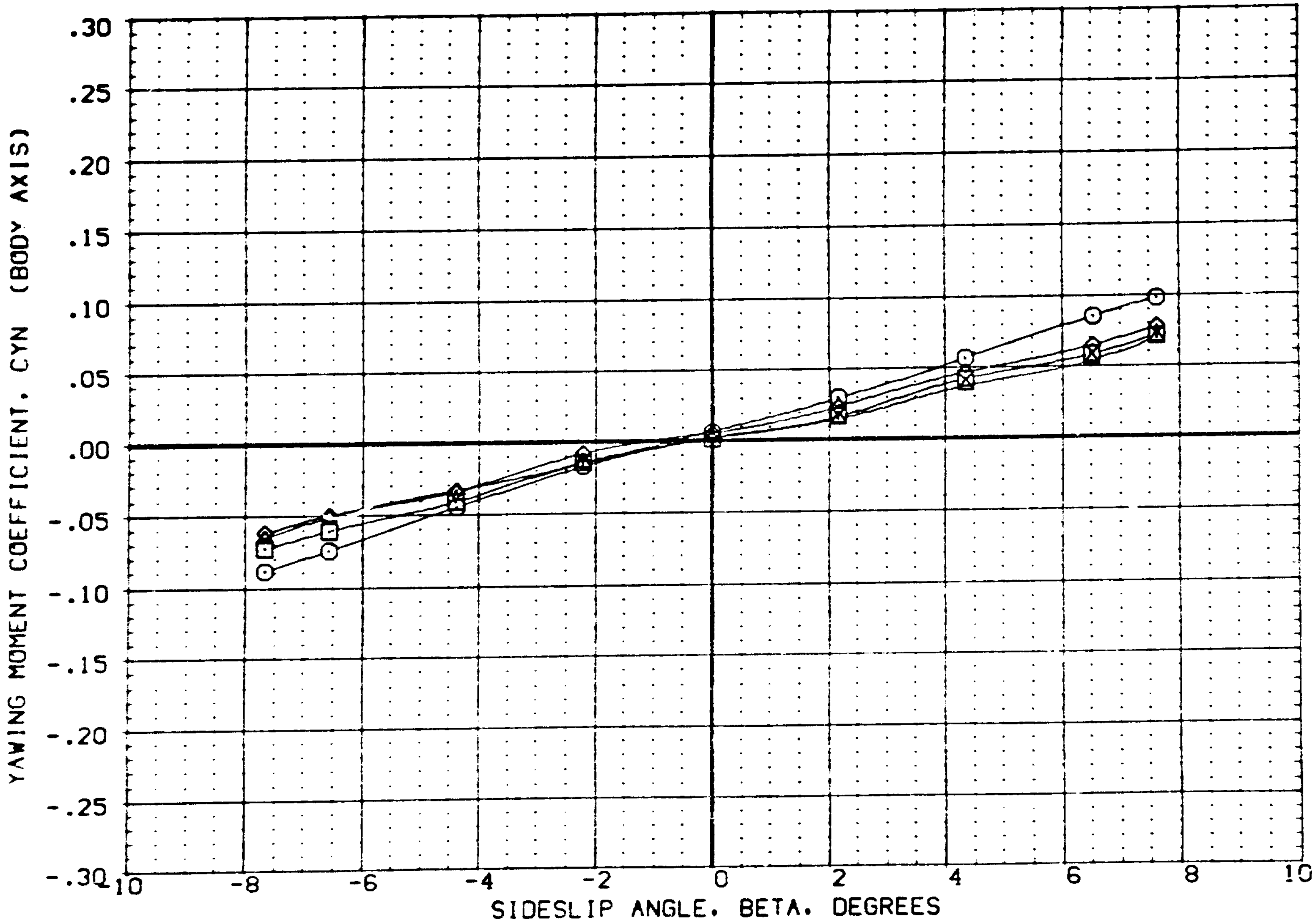
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(B8Z047)	○	AMES 87-710 IA12C OI TI SI	1.000			.000
(B8Z108)	□	AMES 87-710 IA12C OI TI SI	4.000	23.860	.826	1.000
(B8Z051)	◇	AMES 87-710 IA12C OI TI SI	1.000	23.860	.826	1.000
(B8Z091)	△	AMES 87-710 IA12C OI TI SI	3.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



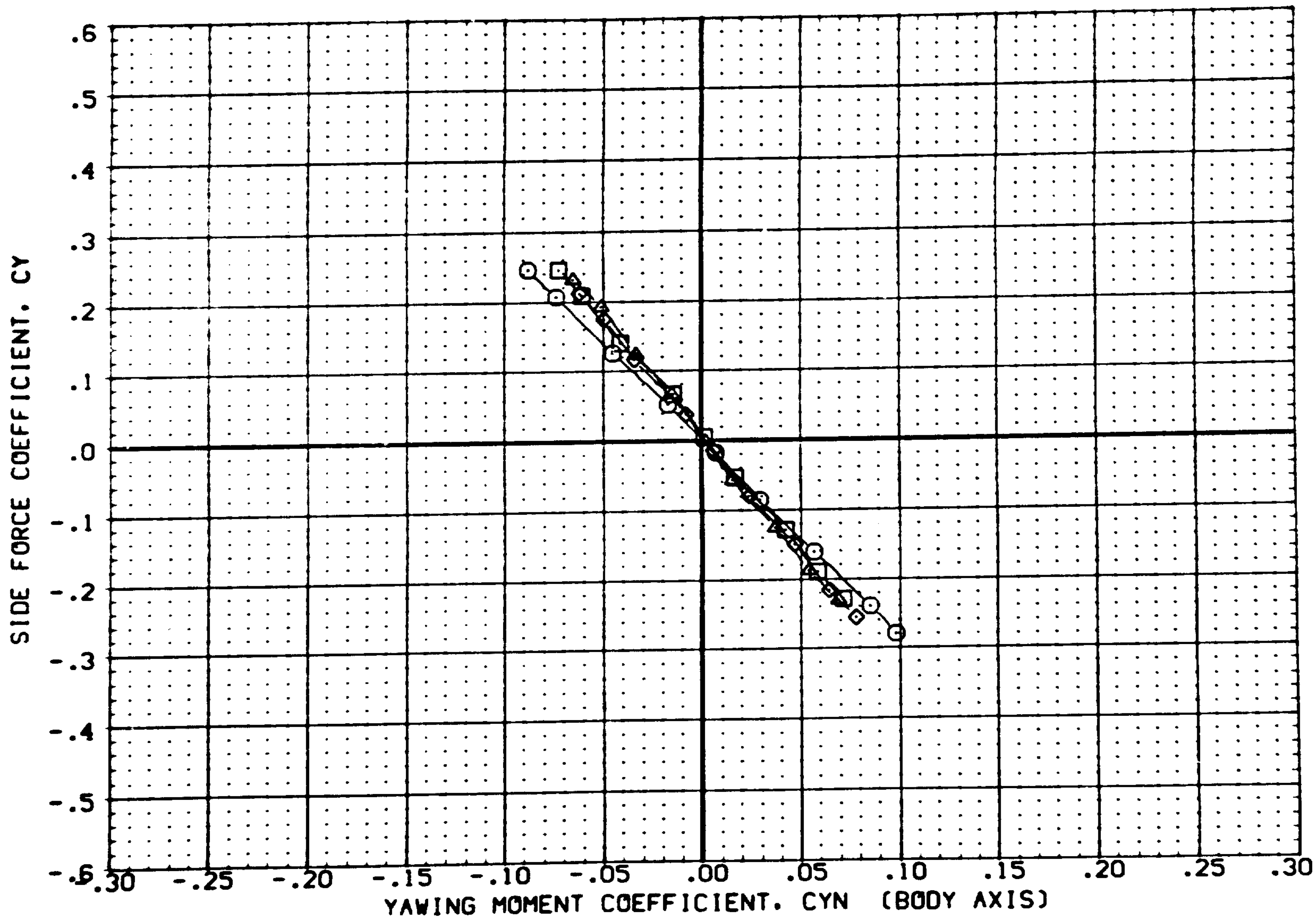
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
BBZ047		AMES 87-710 IA12C 01 T1 S1	1.000			.000
BBZ108		AMES 87-710 IA12C 01 T1 S1	4.000	23.860	.826	1.000
BBZ1??		AMES 87-710 IA12C 01 T1 S1	1.000	23.860	.826	1.000
BBZ091		AMES 87-710 IA12C 01 T1 S1	3.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



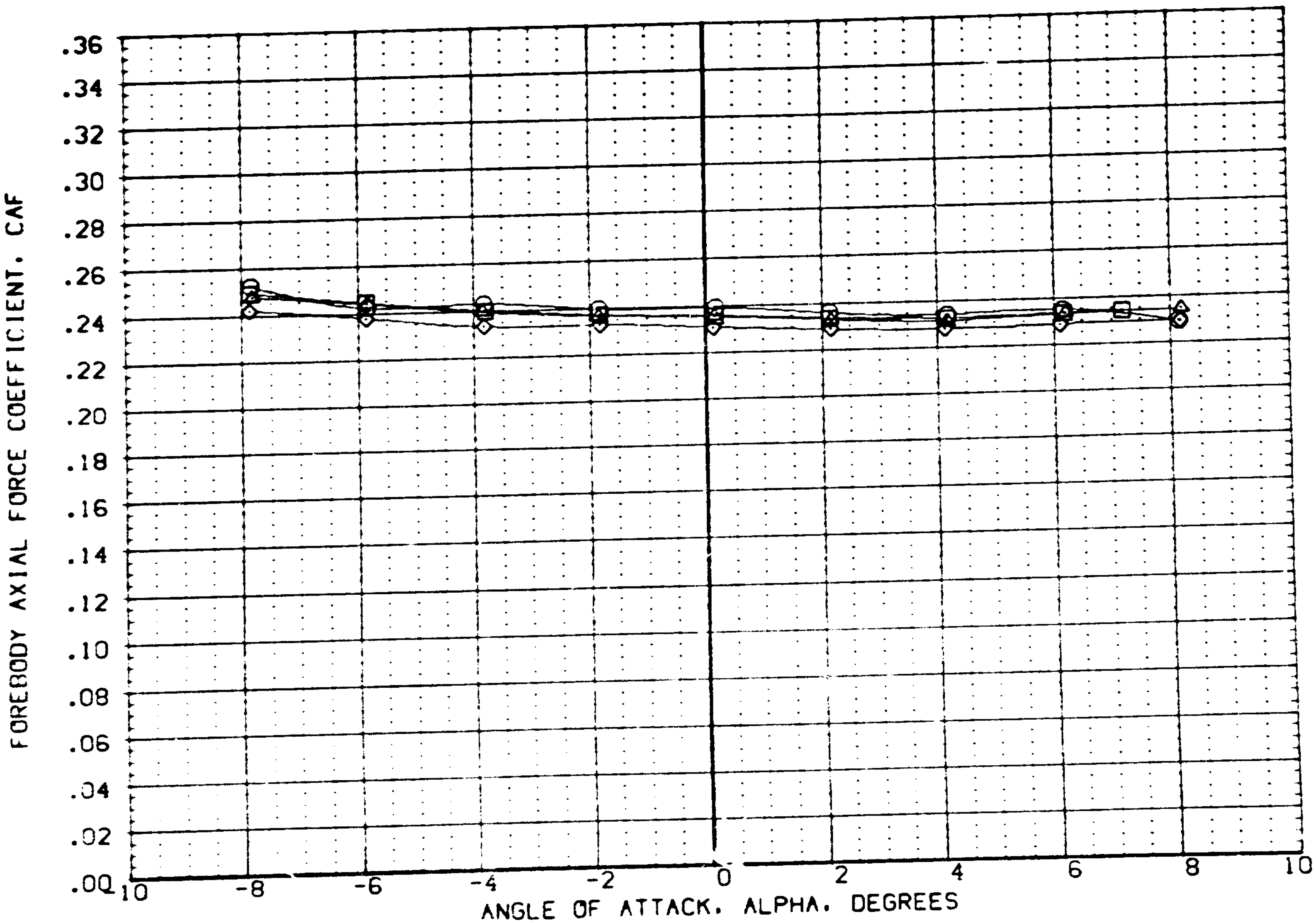
PLUME AND NOZZLE GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(RBZ097)	○	AMES 87-710 IA12C C1 T1 S1	4.000			.000
(RBZ037)	□	AMES 87-710 IA12C O1 T1 S1	1.000			.000
(RBZ033)	◇	AMES 87-710 IA12C C1 T1 S1	3.000			.000
(RBZ030)	△	AMES 87-710 IA12C C2 T1 S1	2.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



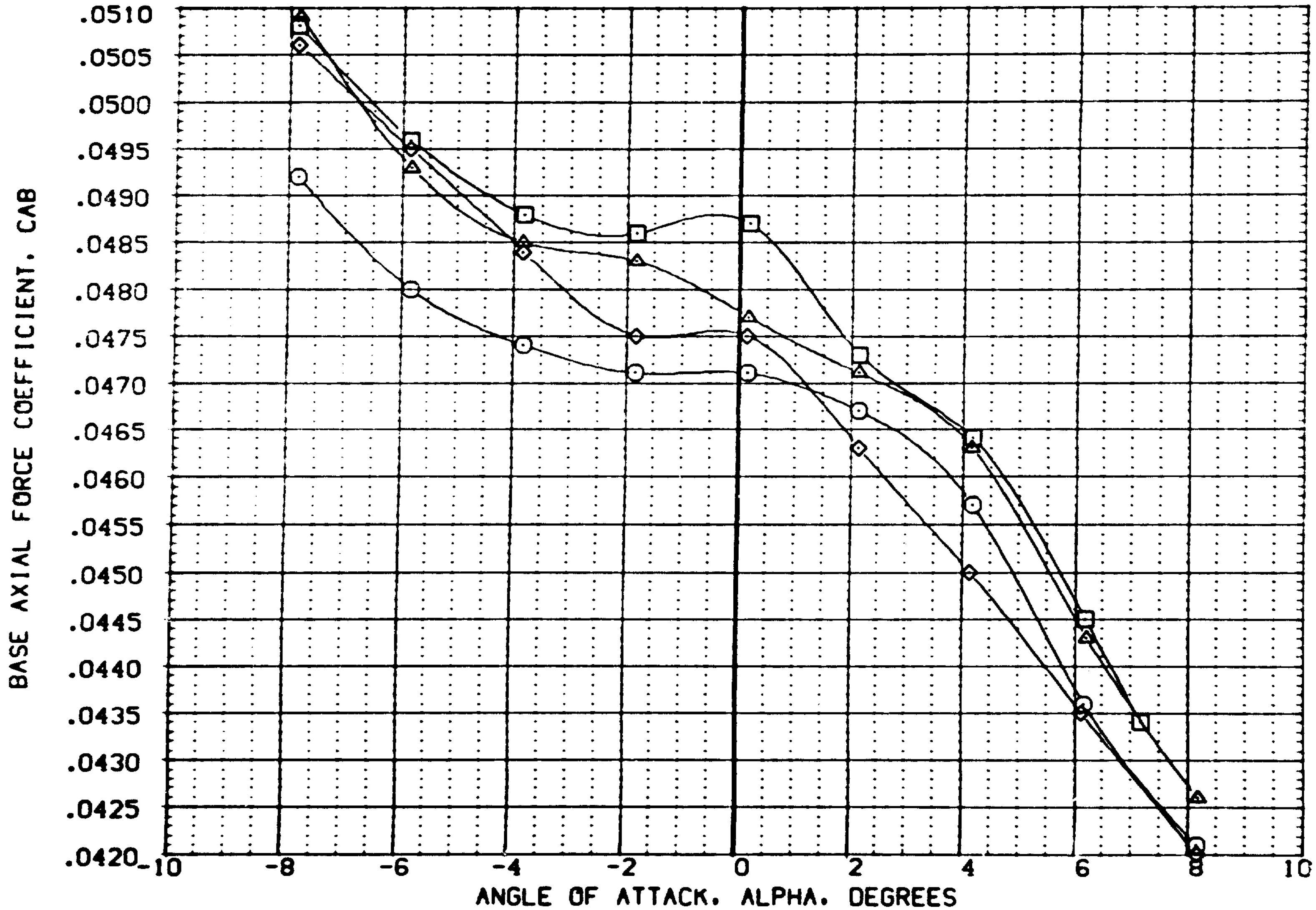
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
CBZ037	⊡	AMES 87-710 IA120 C1 T1 S1	4.000			.000
CBZ037	⊙	AMES 87-710 IA120 C1 T1 S1	1.000			.000
CBZ043	△	AMES 87-710 IA120 C1 T1 S1	3.000			.000
CBZ03	◇	AMES 87-710 IA120 C2 T1 S1	2.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



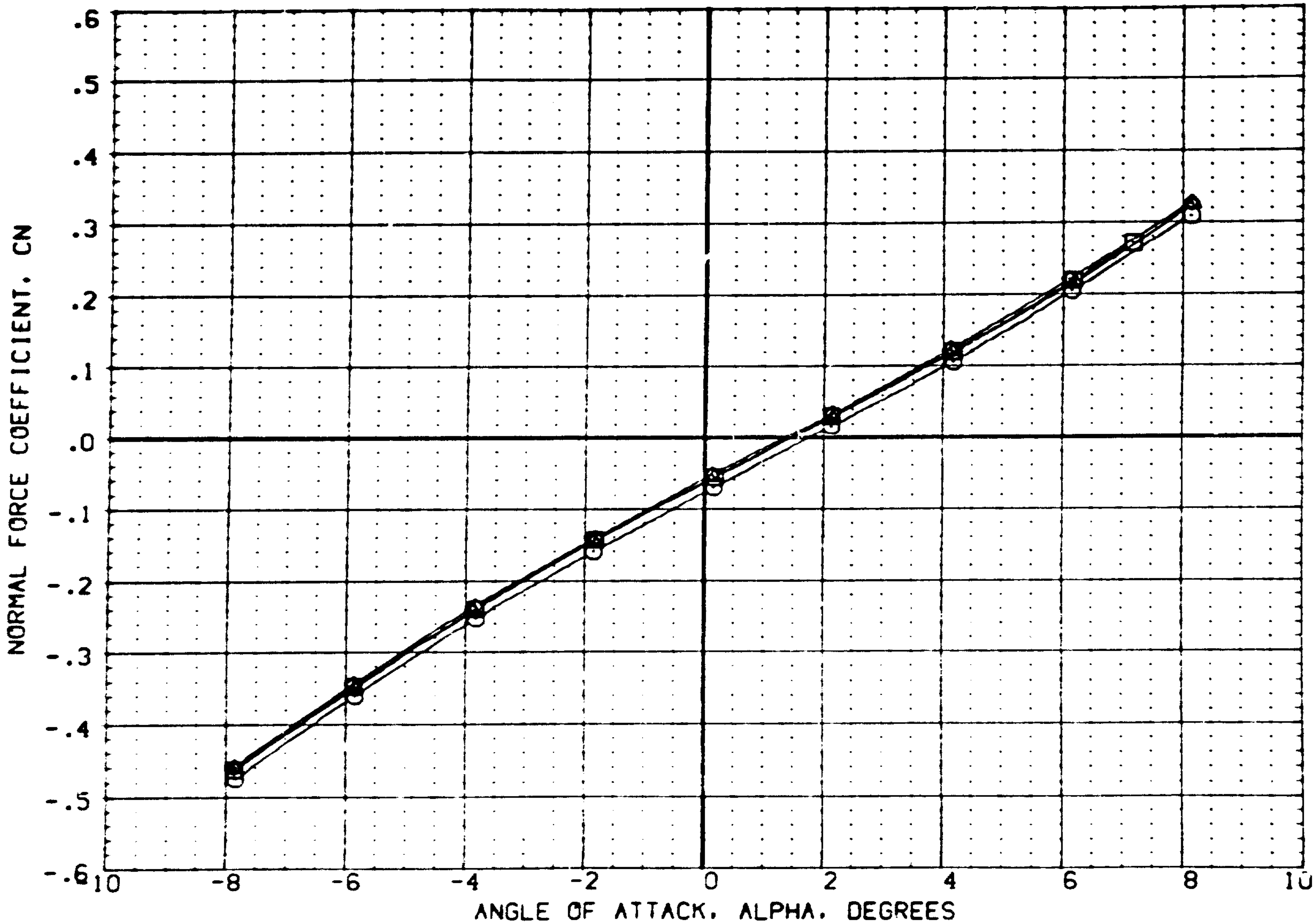
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
BZ097	—	AMES 87-710 IA12C O1 T1 S1	4.000			.000
BZ137	□	AMES 87-710 IA12C O1 T1 S1	1.000			.000
BZ093	◇	AMES 87-710 IA12C O1 T1 S1	3.000			.000
BZ130	△	AMES 87-710 IA12C O2 T1 S1	2.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



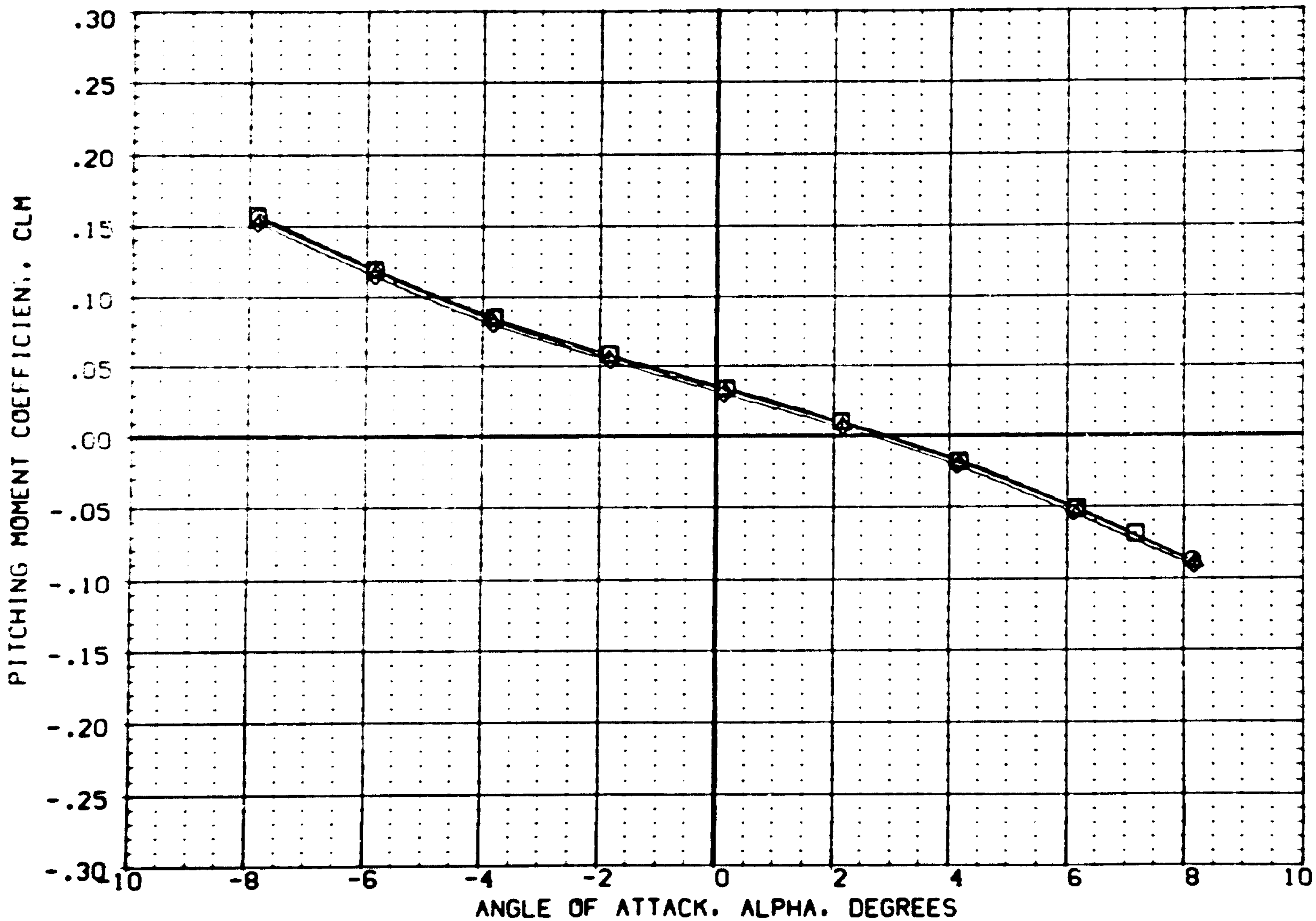
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
CBZ097	○	AMES 87-7.0 (A)20 01 T1 S1	4.000			.000
CBZ037	□	AMES 87-7.0 (A)20 01 T1 S1	1.000			.000
CBZ[illegible]	◇	AMES 87-7.0 (A)20 01 T1 S1	3.000			.000
CBZ[illegible]	△	AMES 87-7.0 (A)20 02 T1 S1	2.000			.000

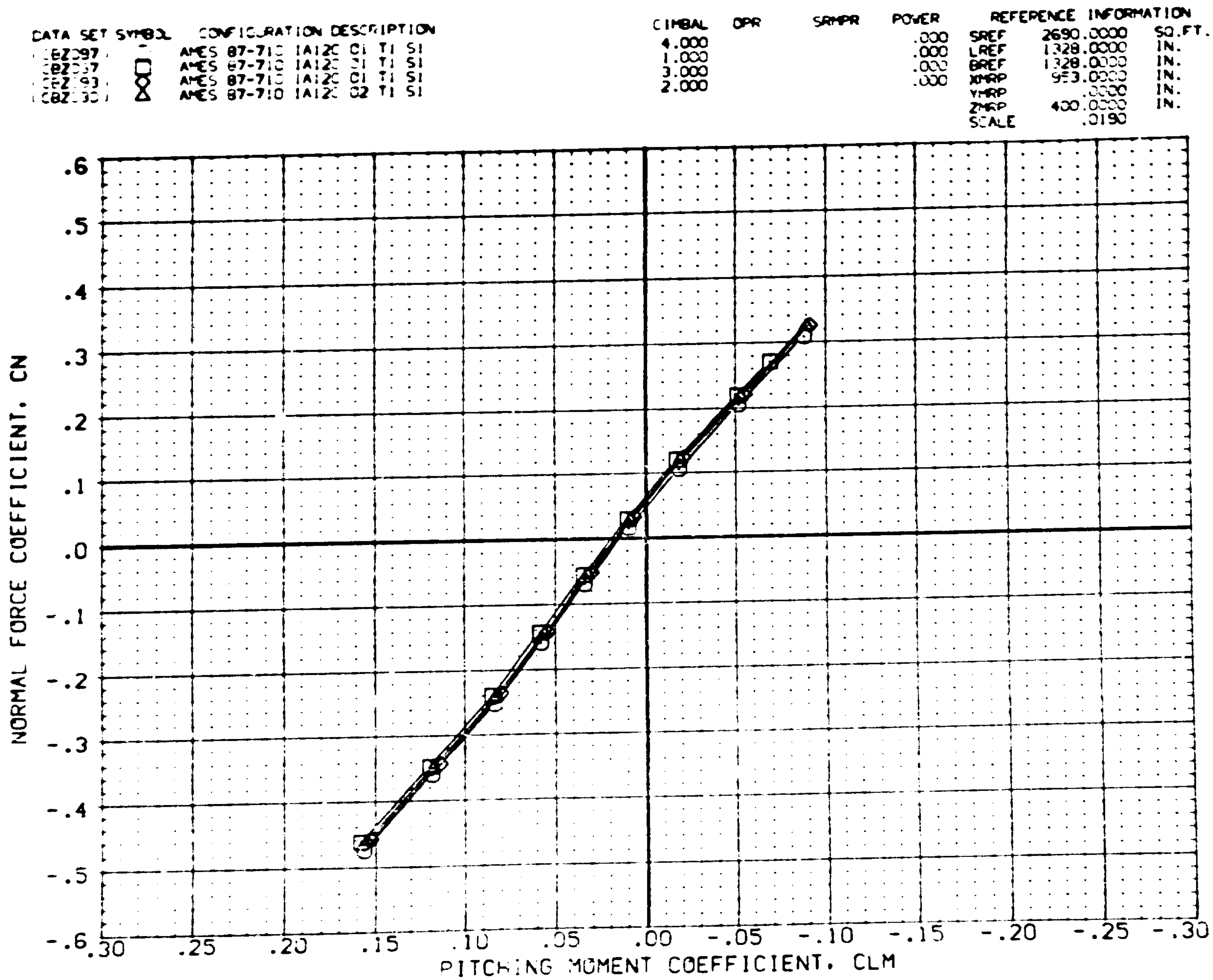
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50



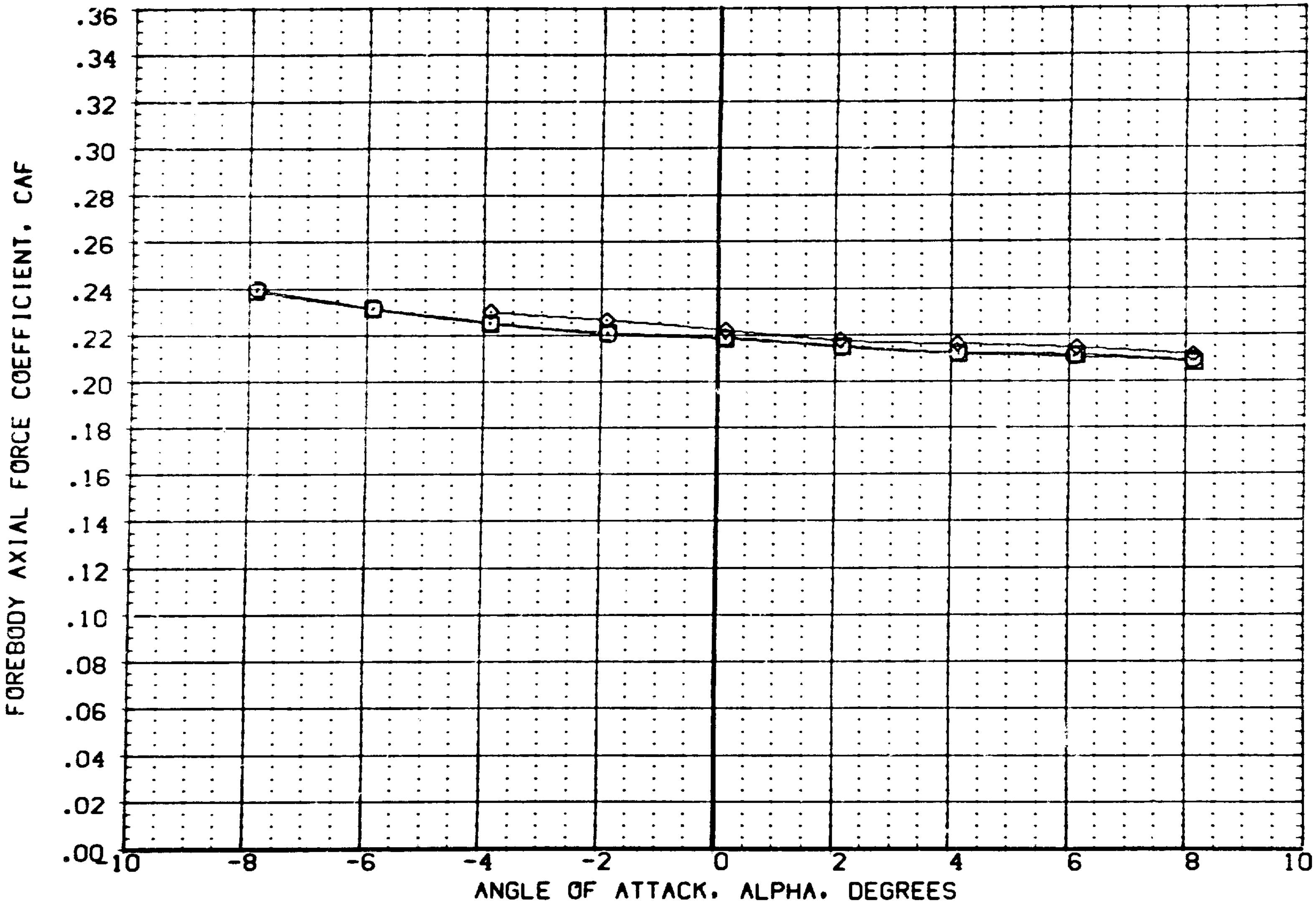
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BZ102)	○	AMES 87-710 IA12C 01 T1 S1	4.000			.000
(BZ038)	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(BZ085)	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



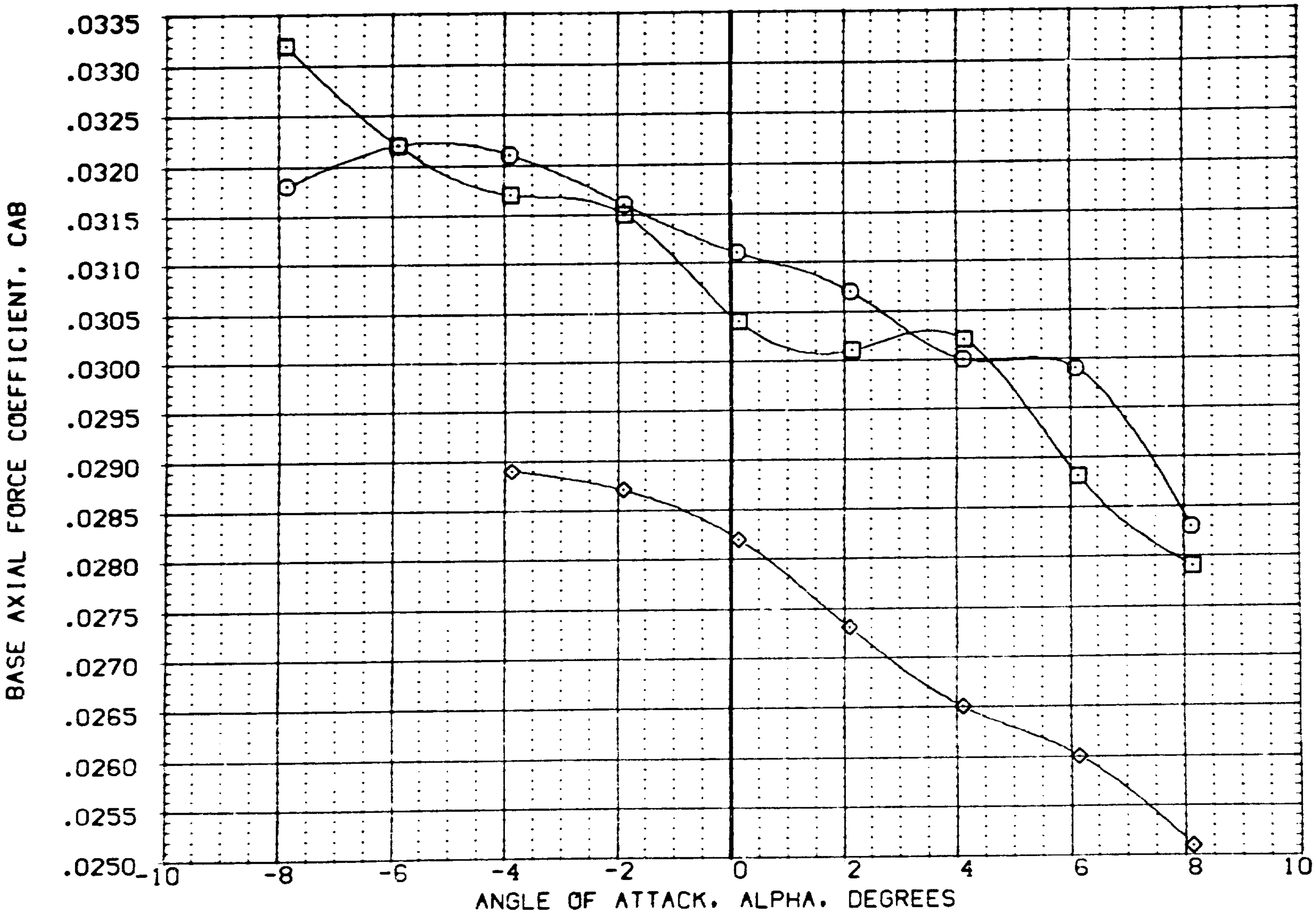
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BZ102)	○	AMES 87-710 IA12C 01 T1 S1	4.000			.000
(BZ034)	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(BZ085)	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

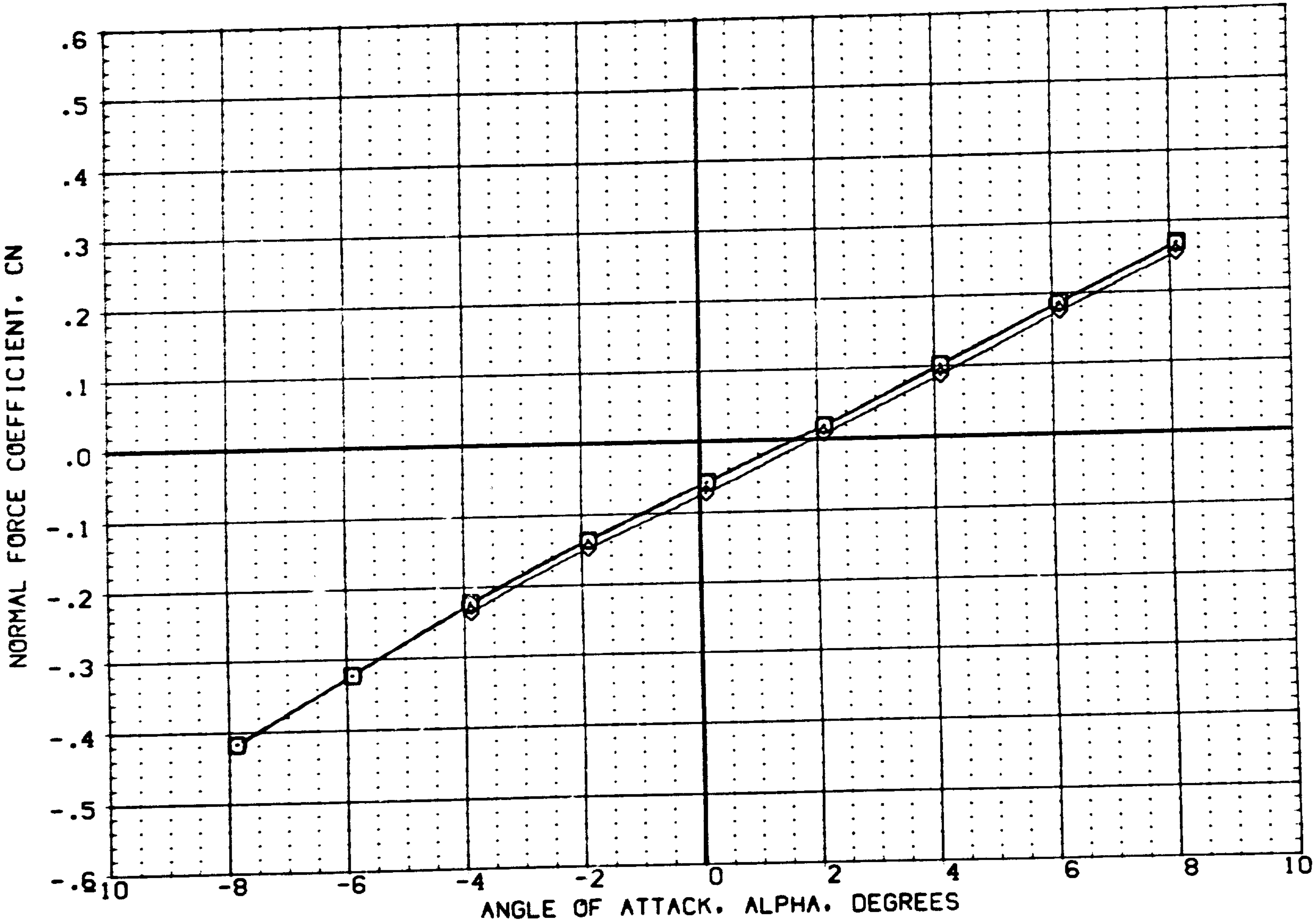


POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

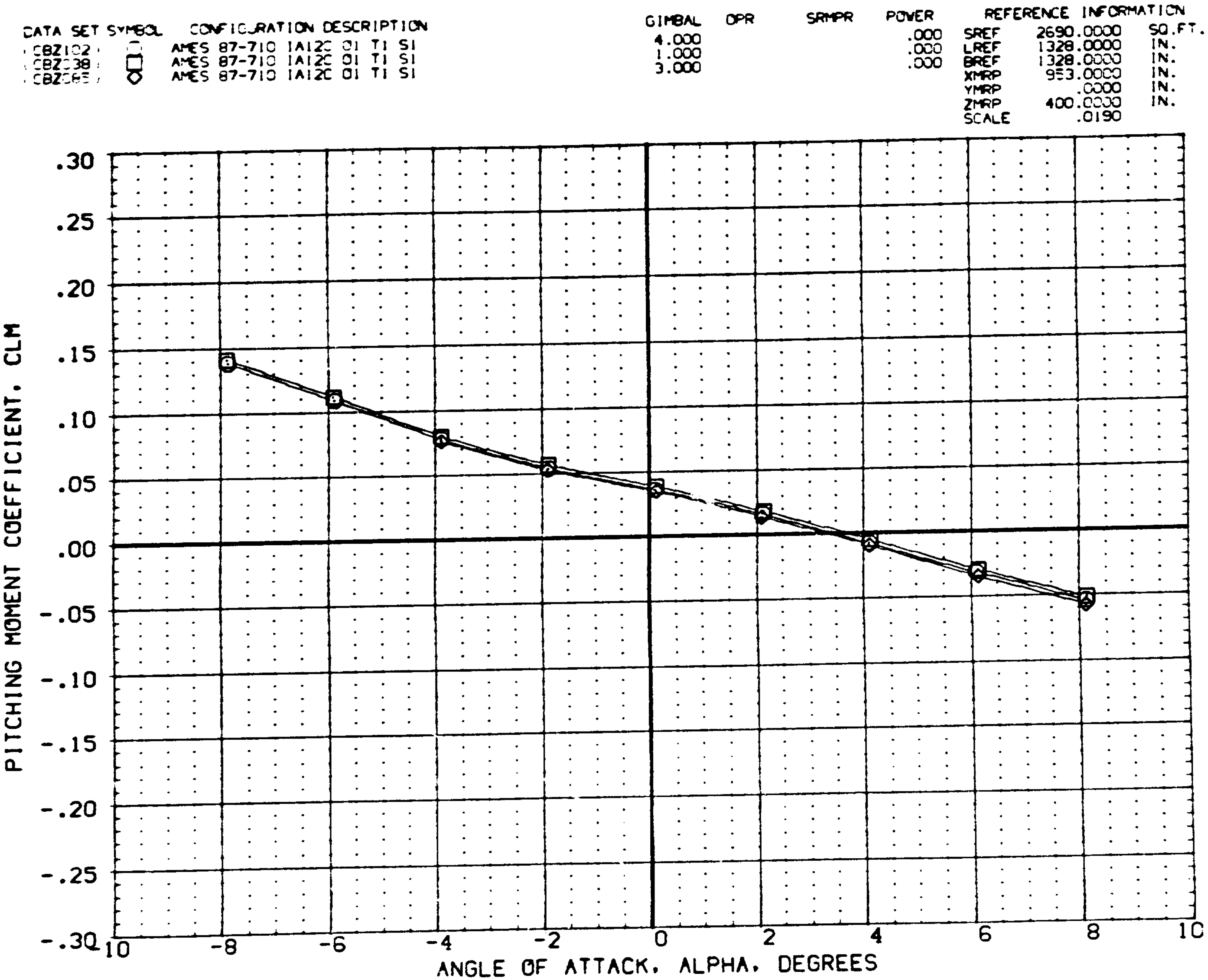
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
1BZ102	—	AMES 87-710 IA12C C1 T1 S1	4.000			.000
1BZ034	□	AMES 87-710 IA12C C1 T1 S1	1.000			.000
1BZ085	◇	AMES 87-710 IA12C C1 T1 S1	3.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

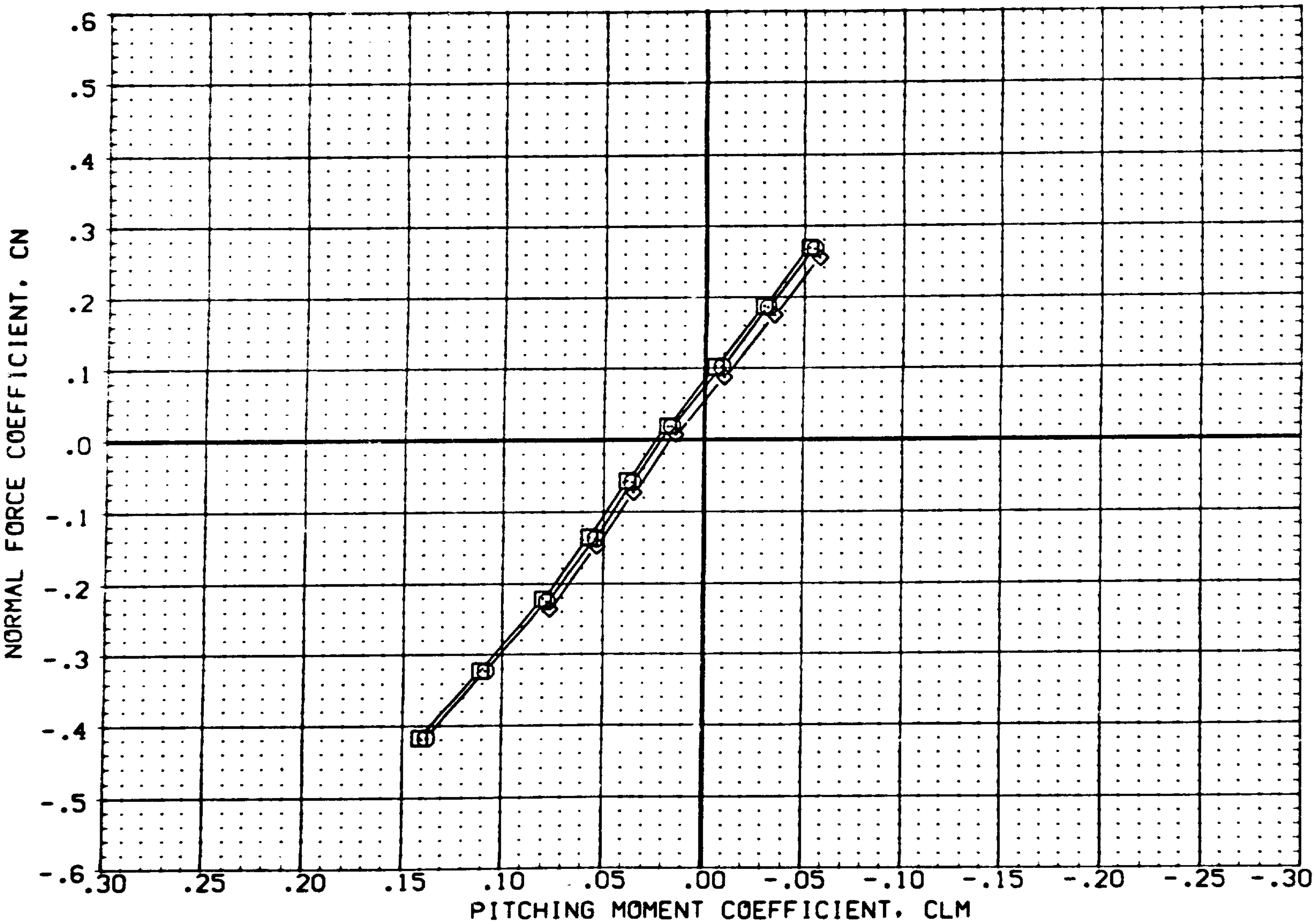


POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(CBZ102)	○	AMES 87-710 IA12C 01 T1 S1	4.000			.000
(CBZ034)	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(CBZ085)	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



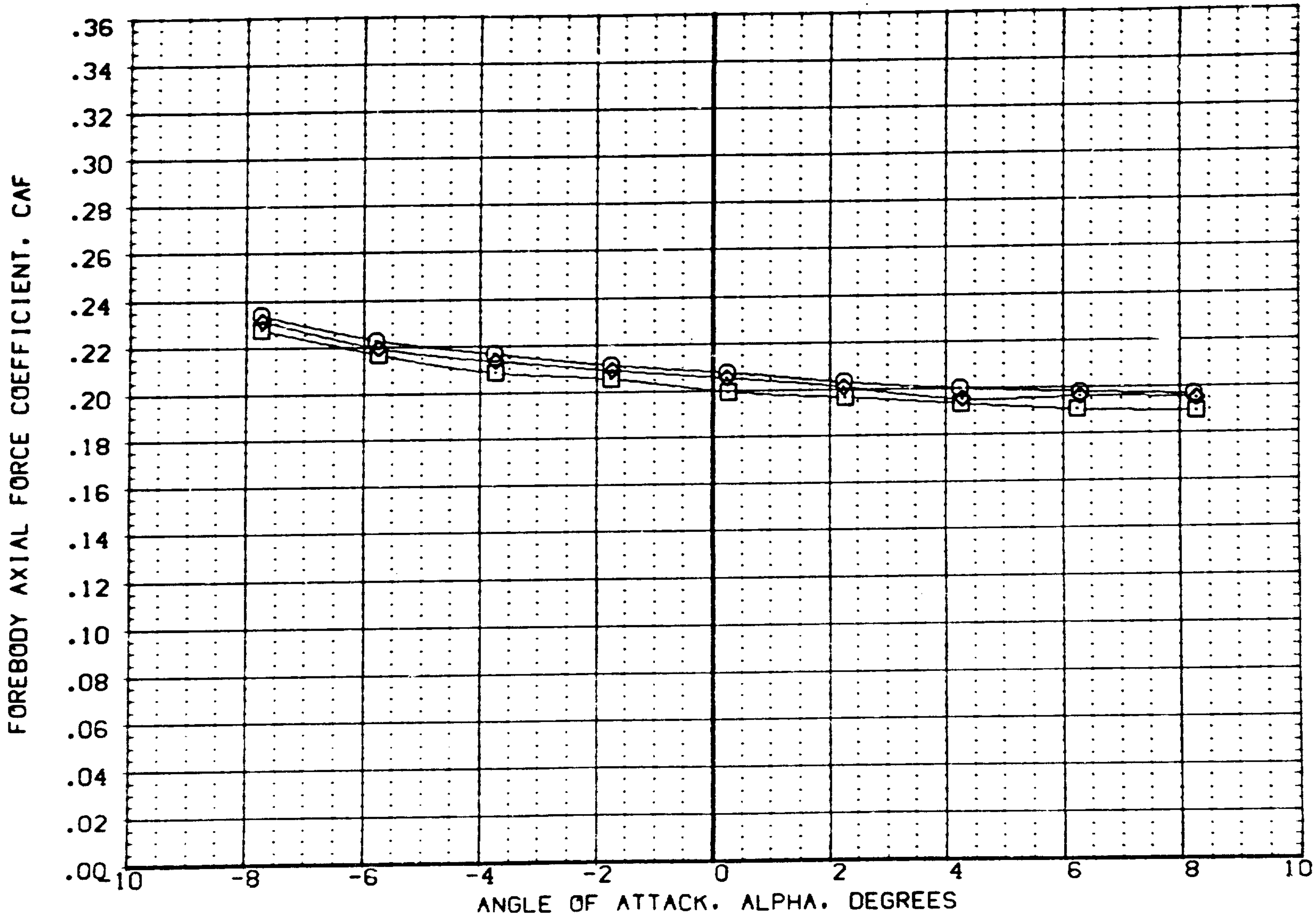
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(CBZ106)	○	AMES 87-710 IA12C O1 T1 S1	4.000			.000
(CBZ046)	□	AMES 87-710 IA12C O1 T1 S1	1.000			.000
(CBZ099)	◇	AMES 87-710 IA12C O1 T1 S1	3.000			.000

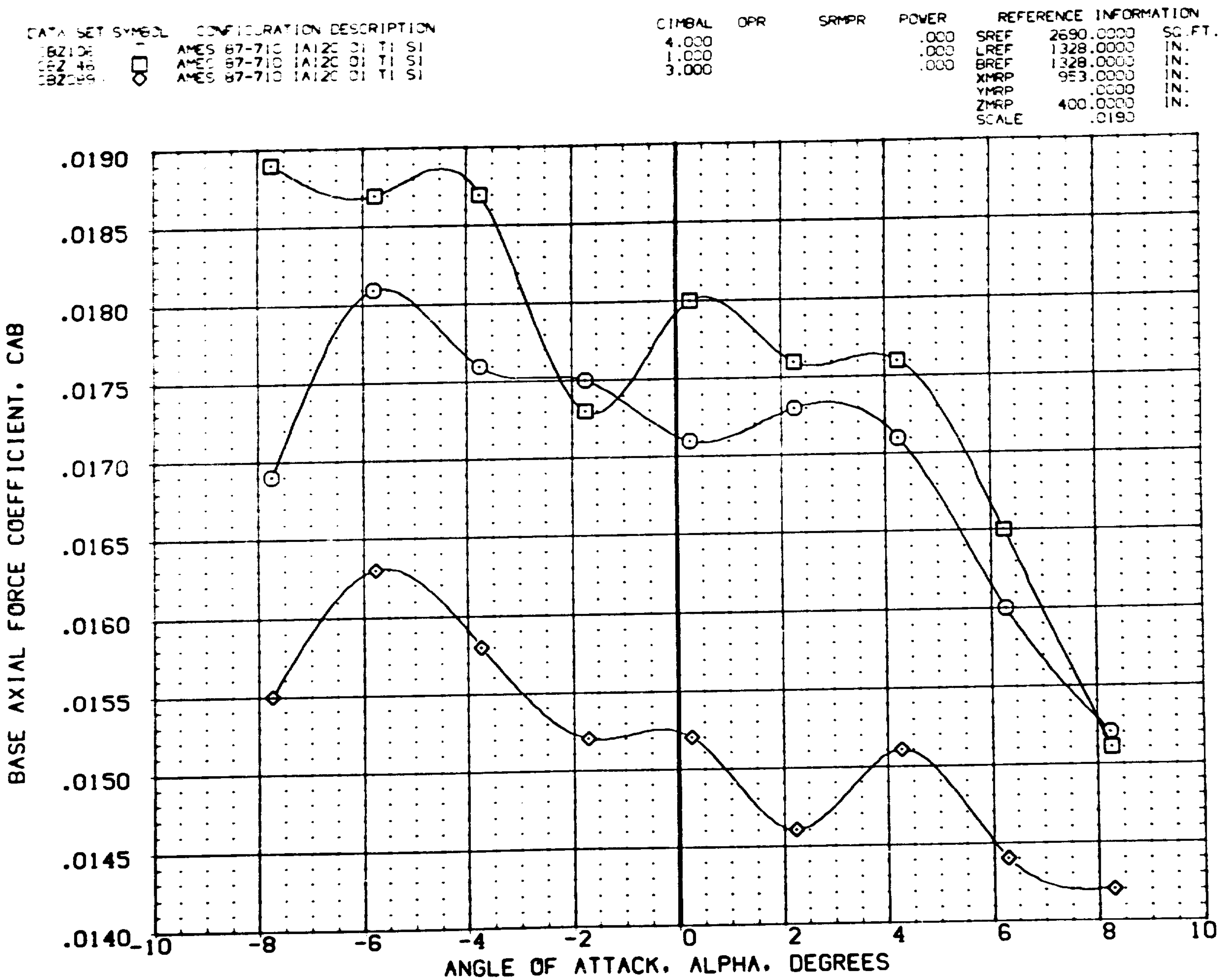
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



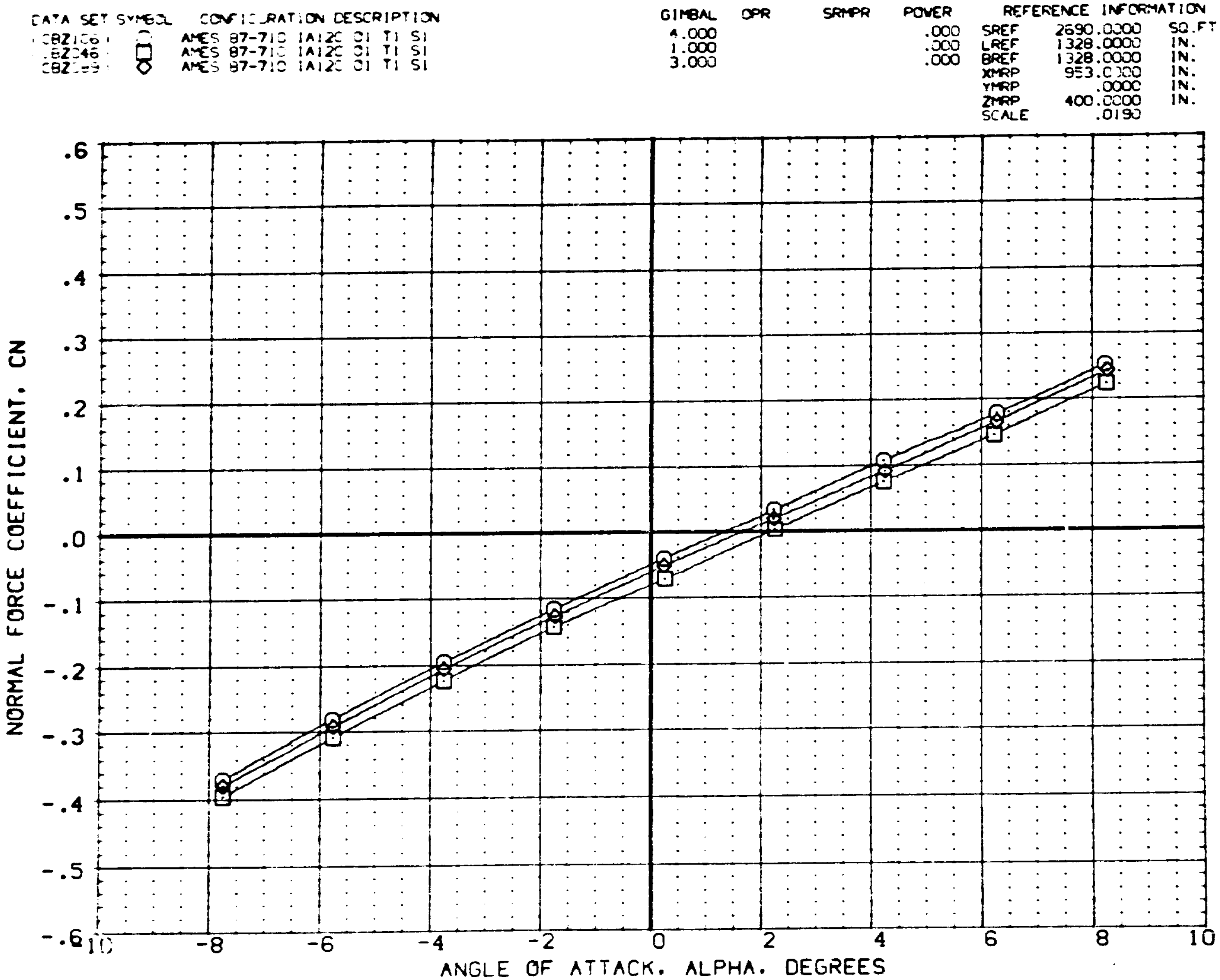
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



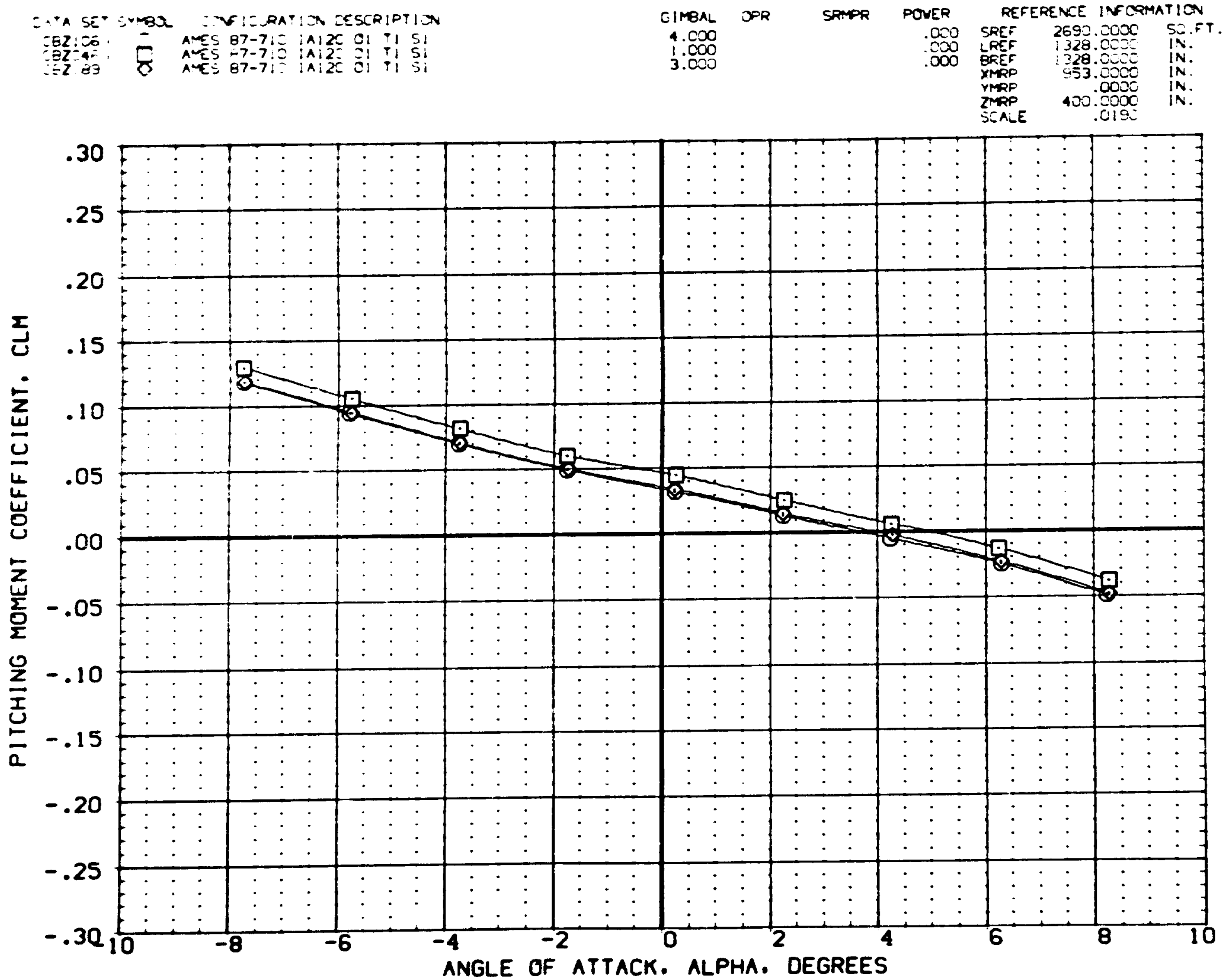
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



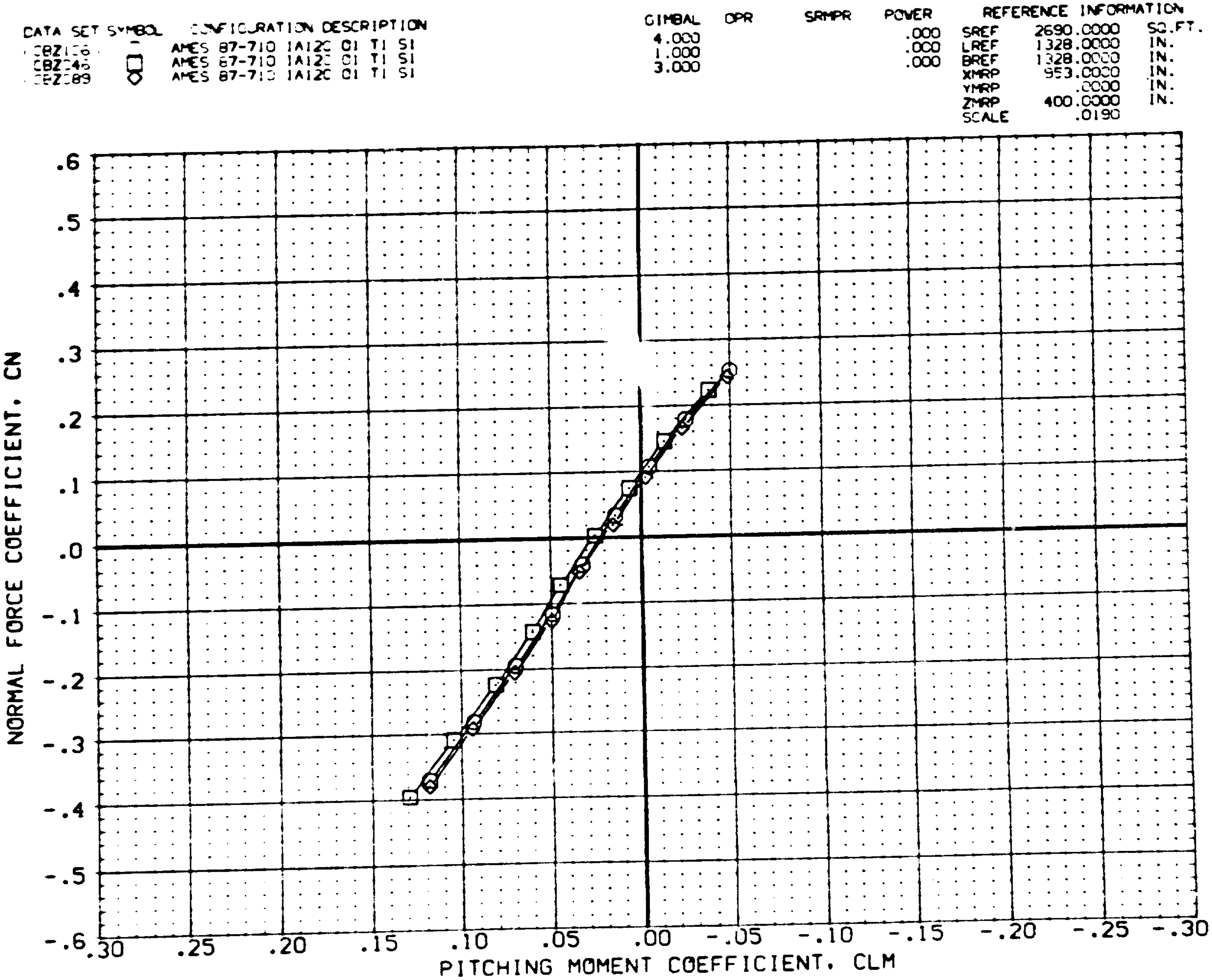
POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

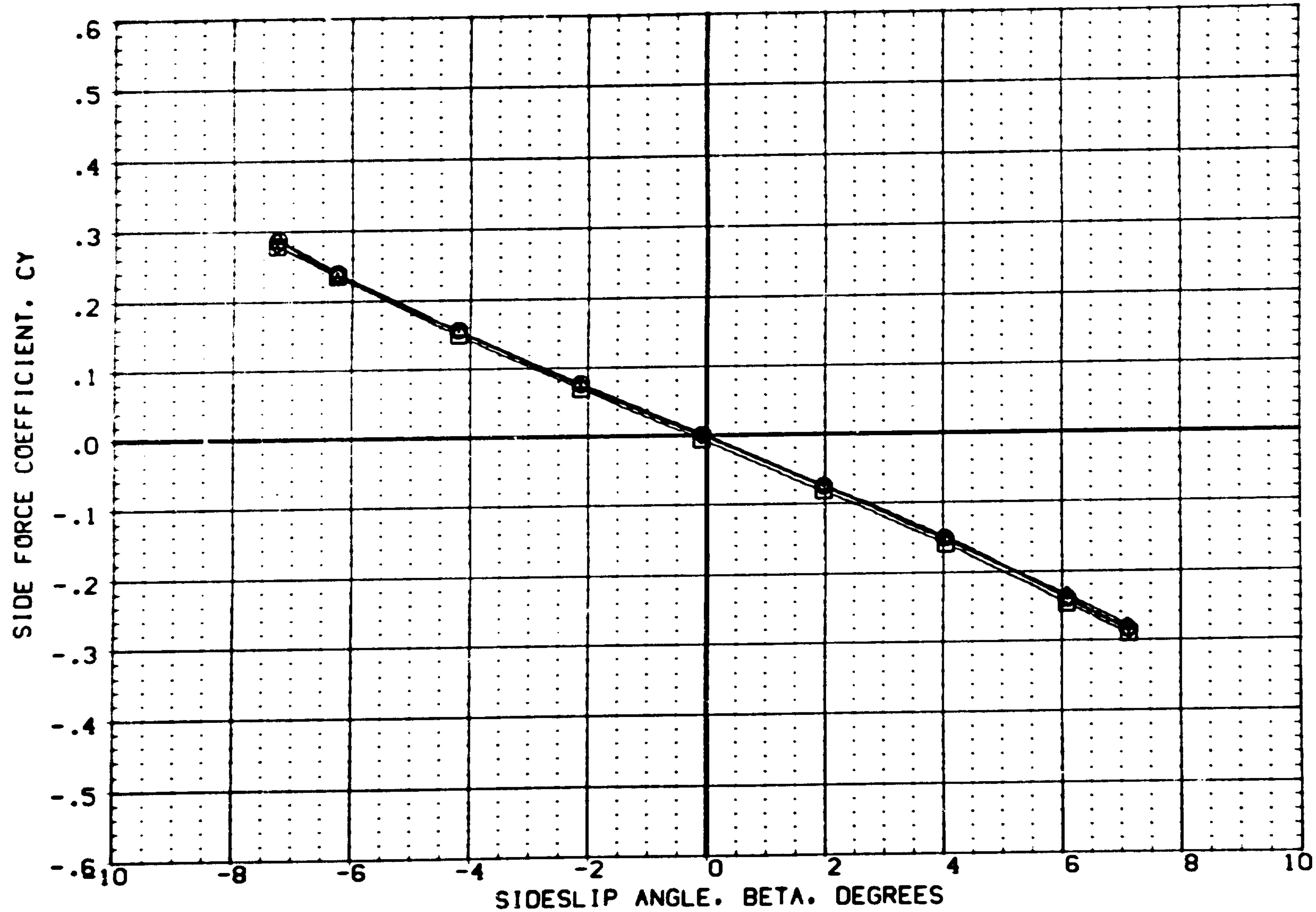


POWER-OFF GIMBAL ANGLE EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
BBZ096	—	AMES 87-710 IA12C C1 T1 S1	4.000			.000
BBZ032	□	AMES 87-710 IA12C C1 T1 S1	1.000			.000
BBZ034	⊠	AMES 87-710 IA12C C1 T1 S1	3.000			.000
BBZ029	△	AMES 87-710 IA12C C2 T1 S1	2.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

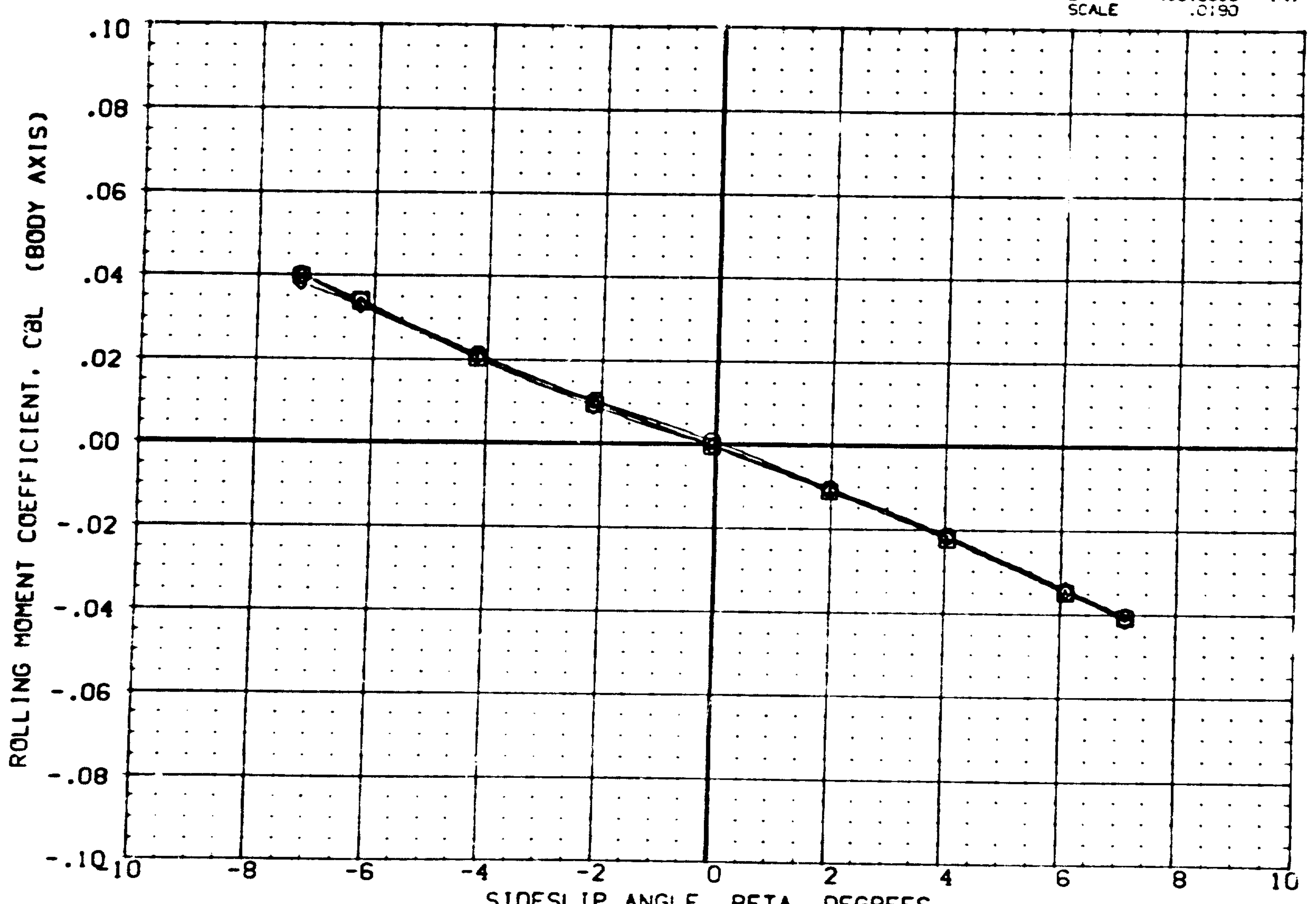


POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
6BZ09H		AMES 87-710 IA12C 01 T1 S1	4.000			.000
6BZ032	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
6BZ 4	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000
6BZ023	△	AMES 87-710 IA12C 02 T1 S1	2.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



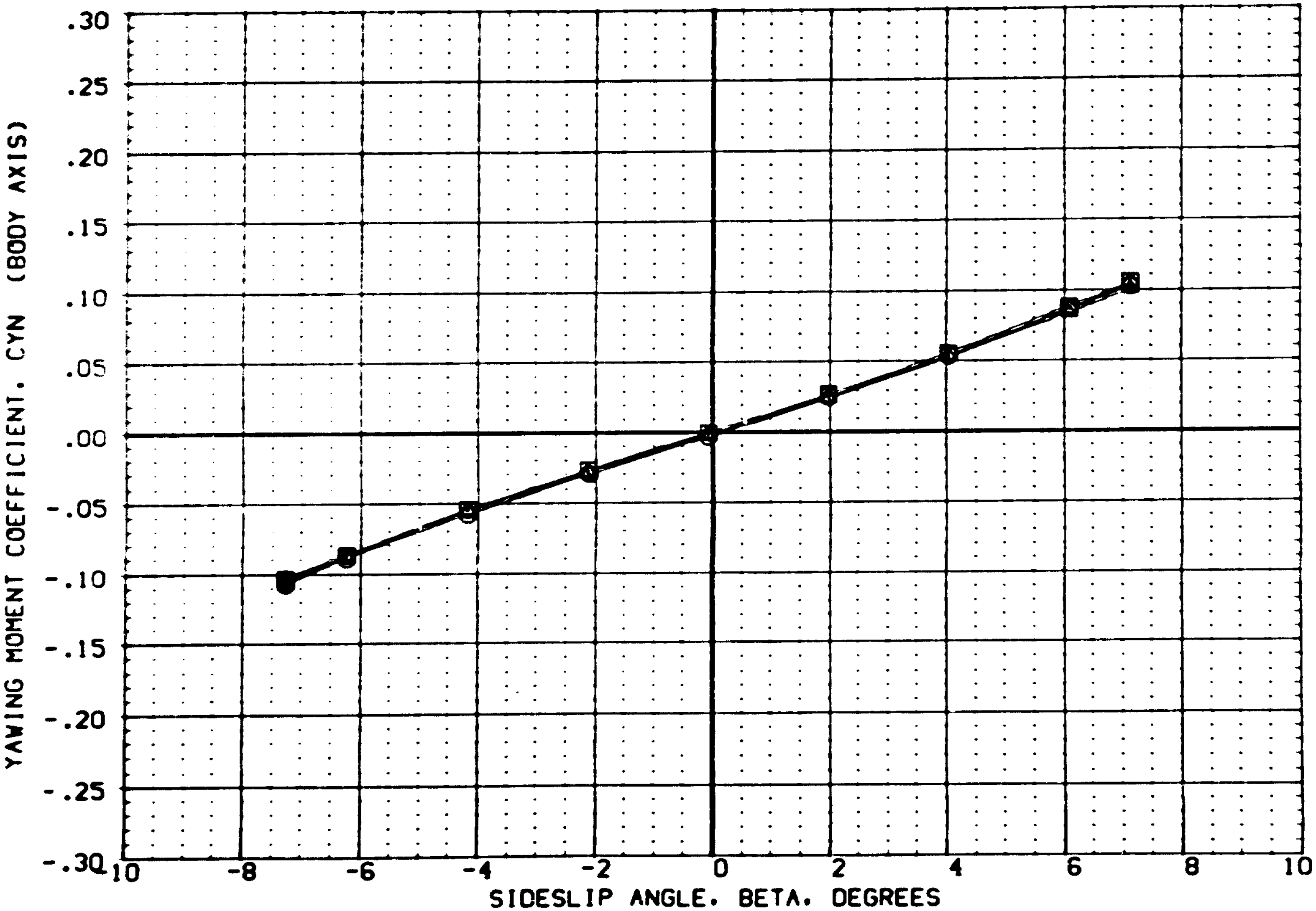
POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
RRZ05A	•	AMES 87-71C (A)20 01 T1 S1	4.000			.000
RRZ..2	□	AMES 87-71C (A)20 01 T1 S1	1.000			.000
RRZ..4	◇	AMES 87-71C (A)20 01 T1 S1	3.000			.000
RRZ.2.	△	AMES 87-71C (A)20 02 T1 S1	2.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



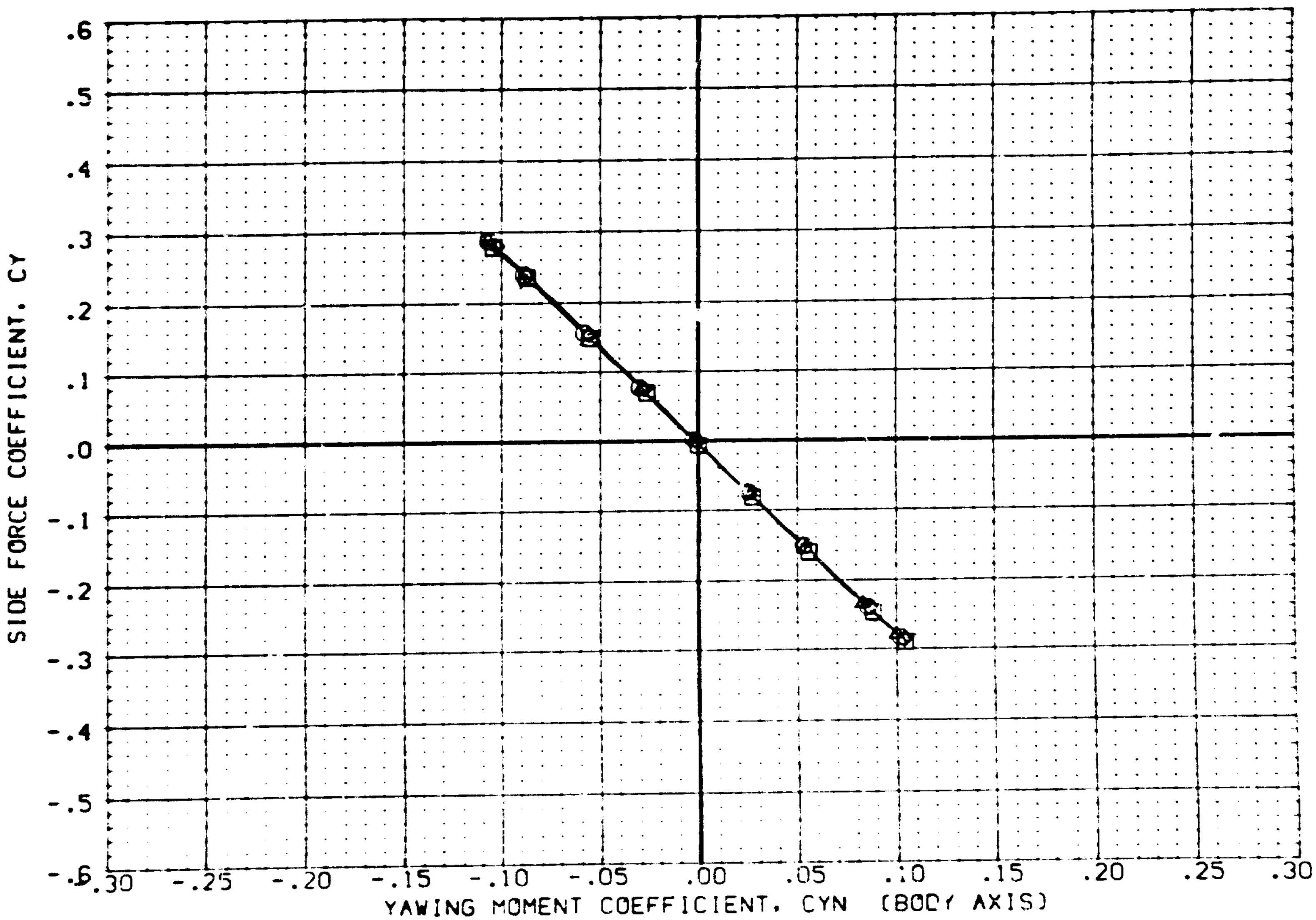
POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	DPR	SRMFR	POWER
RRZ094		AMES 87-710 IA120 31 T1 S1	4.000			.000
RRZ112		AMES 87-710 IA120 31 T1 S1	1.000			.000
RRZ114		AMES 87-710 IA120 31 T1 S1	3.000			.000
RRZ023		AMES 87-710 IA120 32 T1 S1	2.000			.000

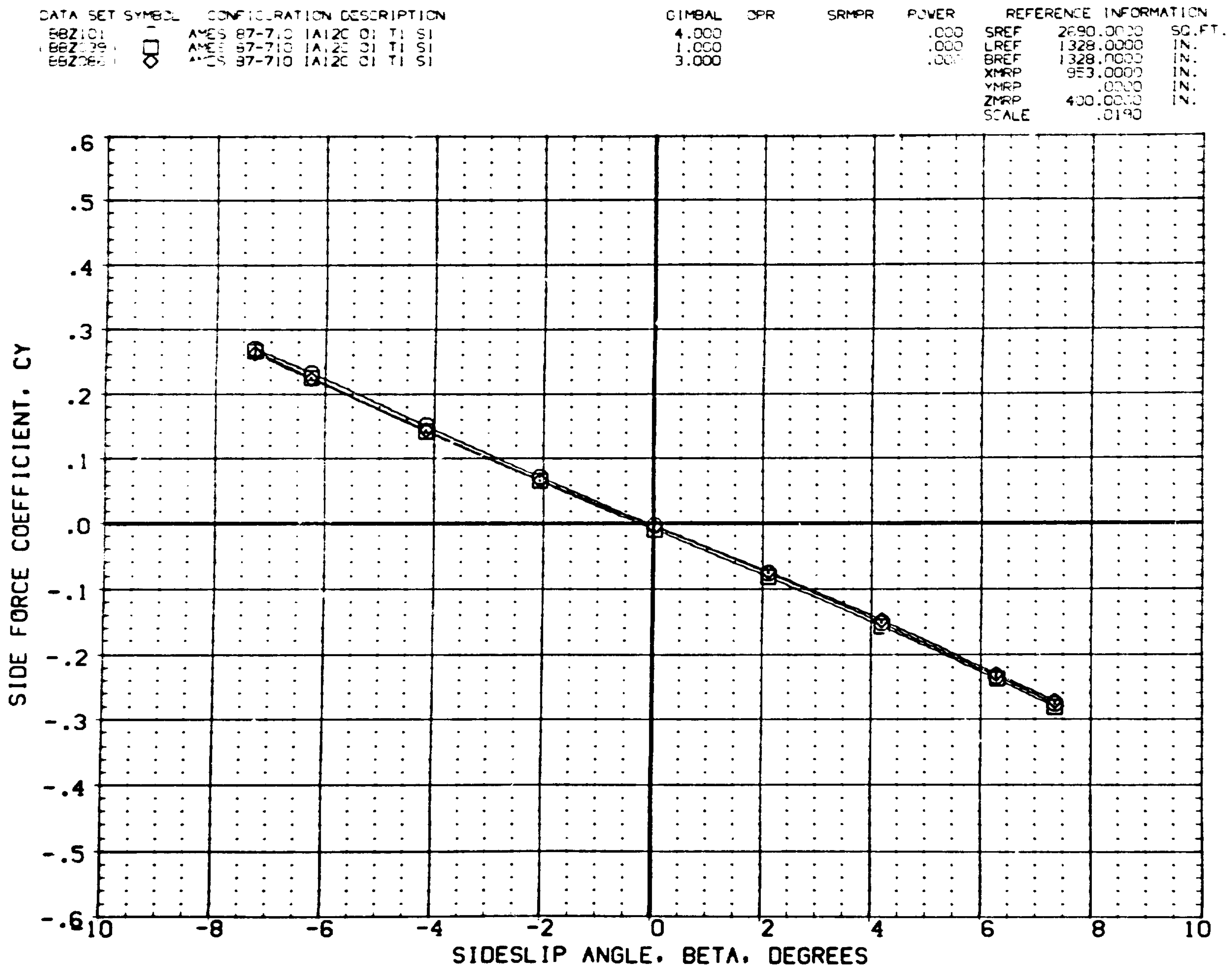
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 2.50



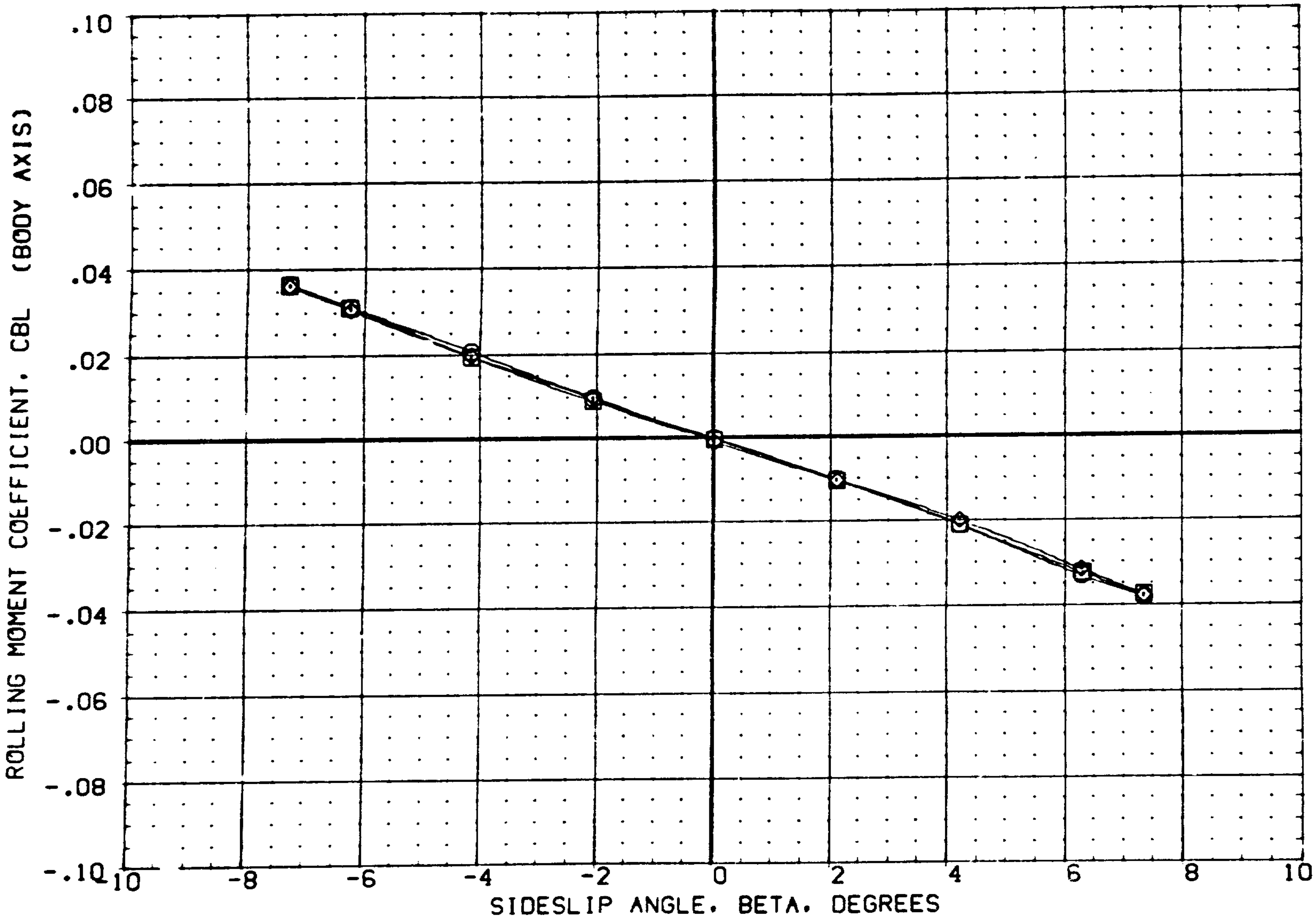
POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BBZ[illegible]	○	AMES 87-710 IA12C 01 T1 S1
BBZ039	□	AMES 87-710 IA12C 01 T1 S1
BBZ[illegible]	◇	AMES 87-710 IA12C 01 T1 S1

GIMBAL	OPR	SRMPR	POWER
4.000			.000
1.000			.000
3.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BBZ101)		AMES 87-710 IA12C OI TI SI	4.000			.000
(BBZ039)	□	AMES 87-710 IA12C OI TI SI	1.000			.000
(BBZ086)	◇	AMES 87-710 IA12C OI TI SI	3.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
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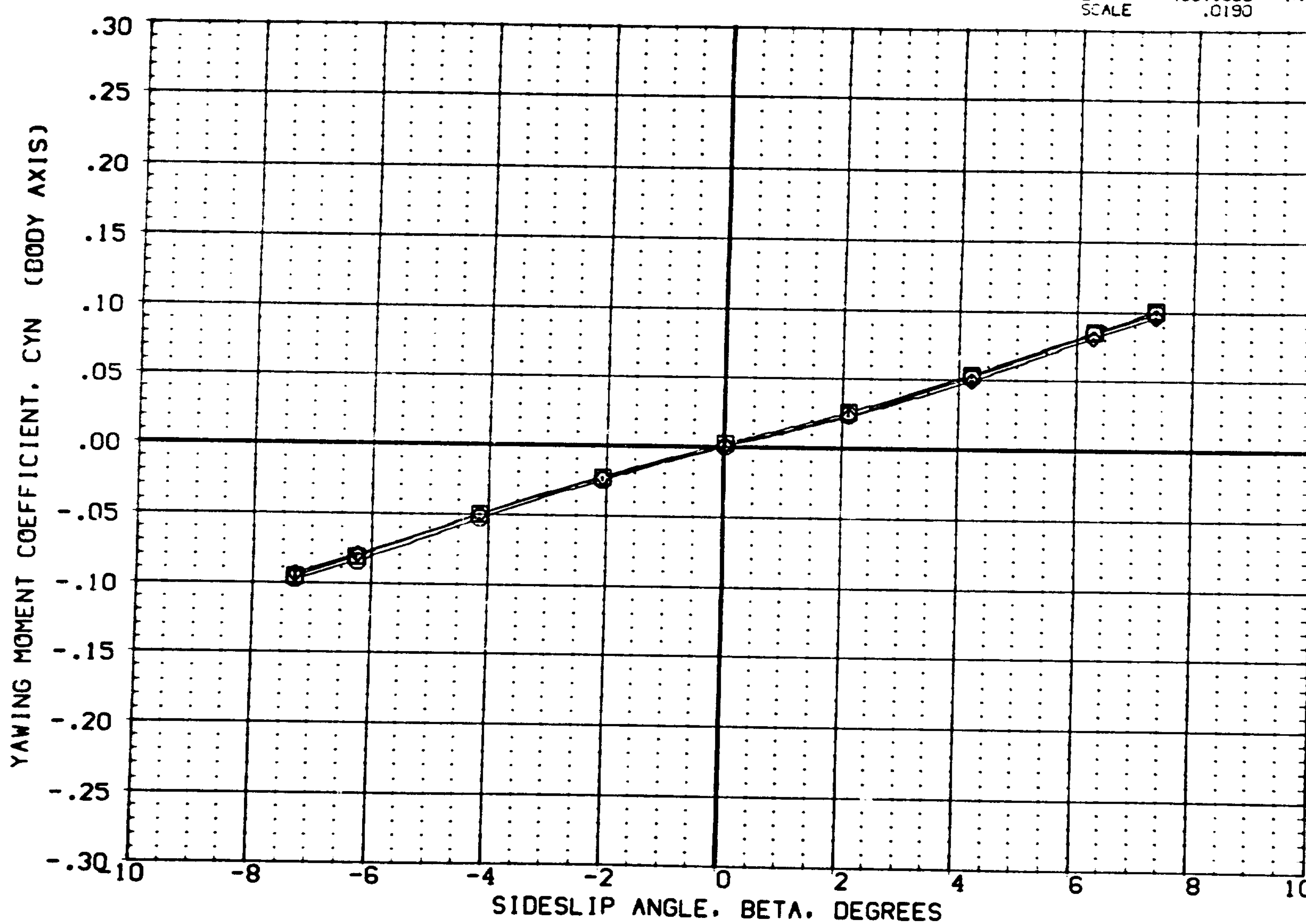
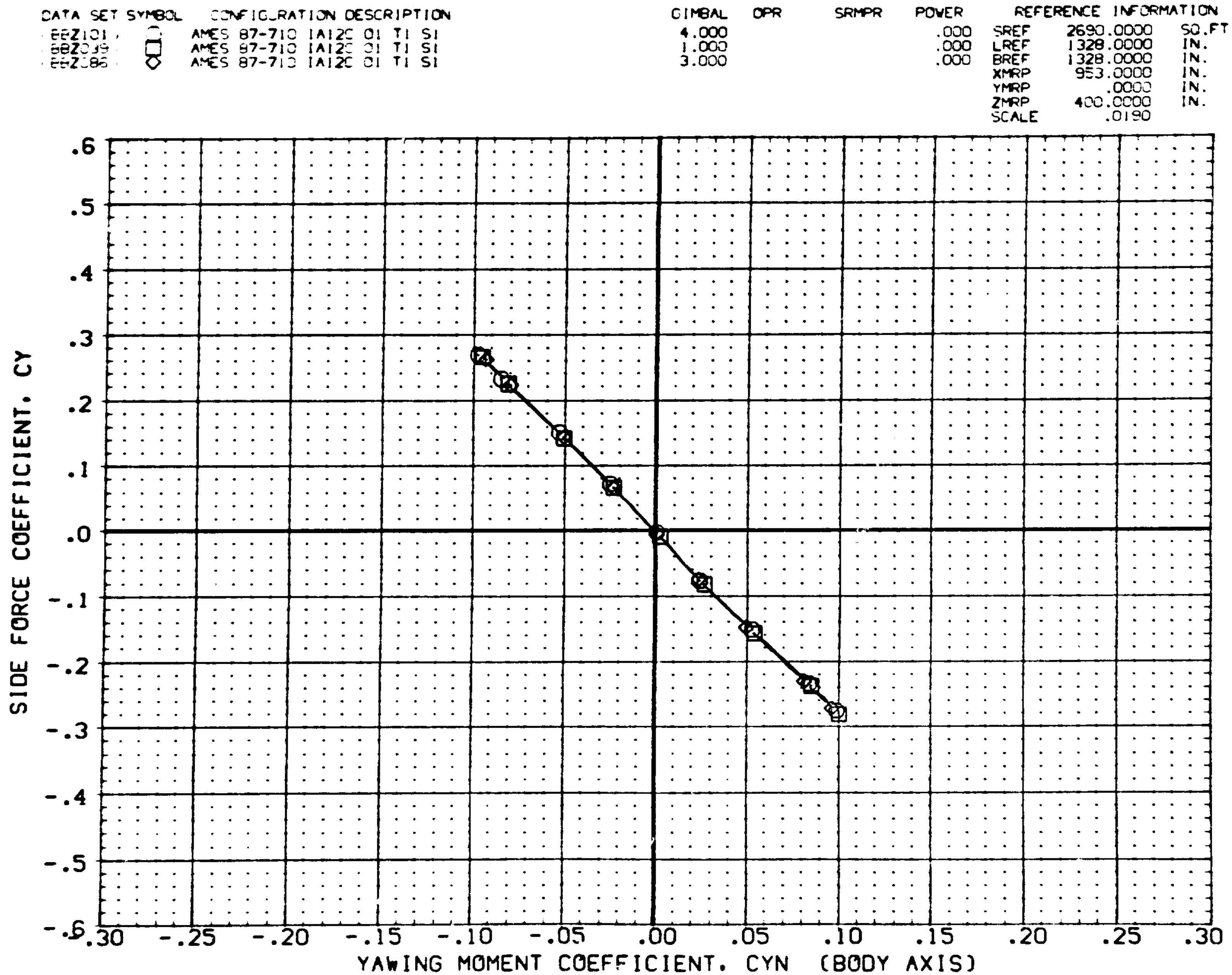


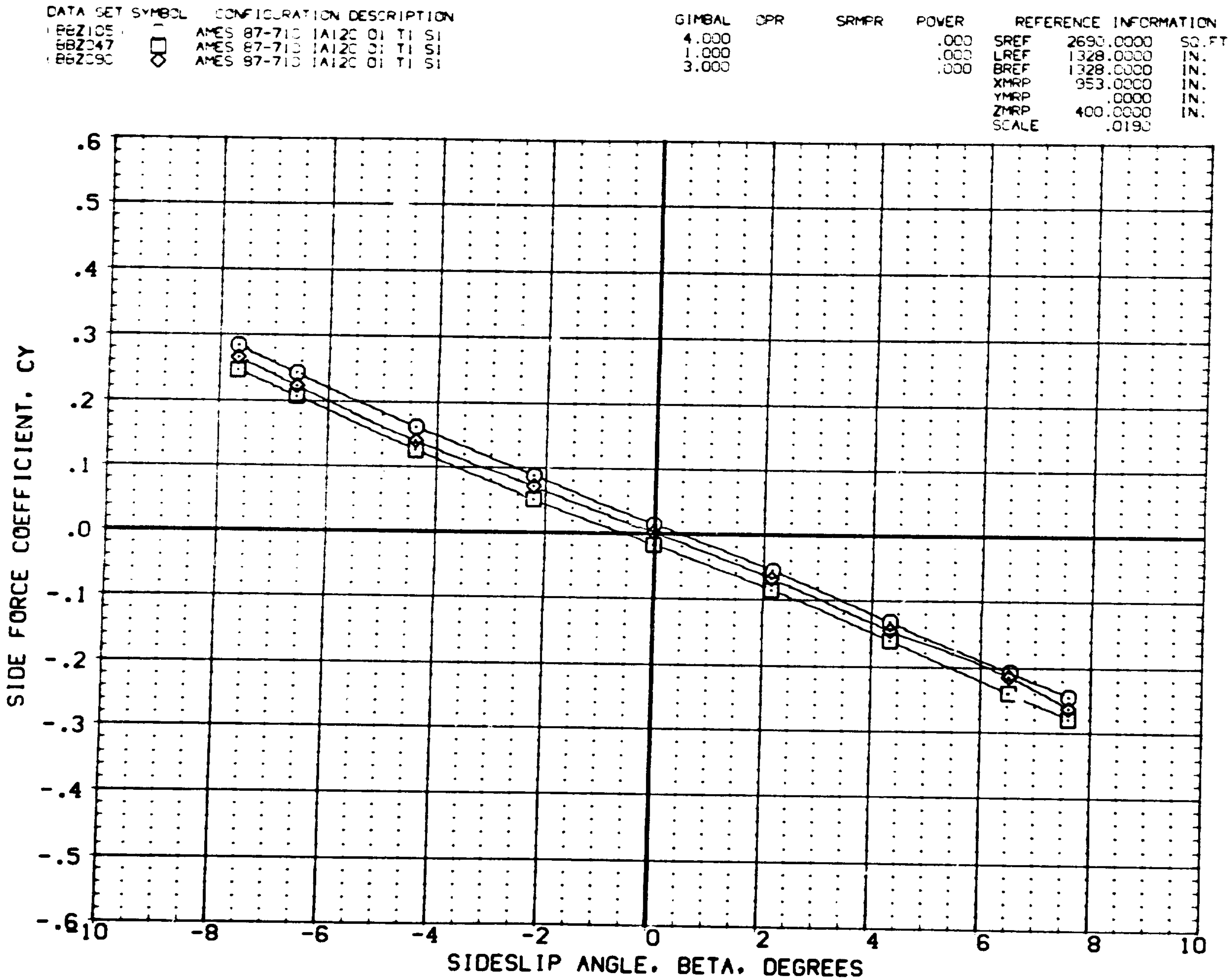
POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00



POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

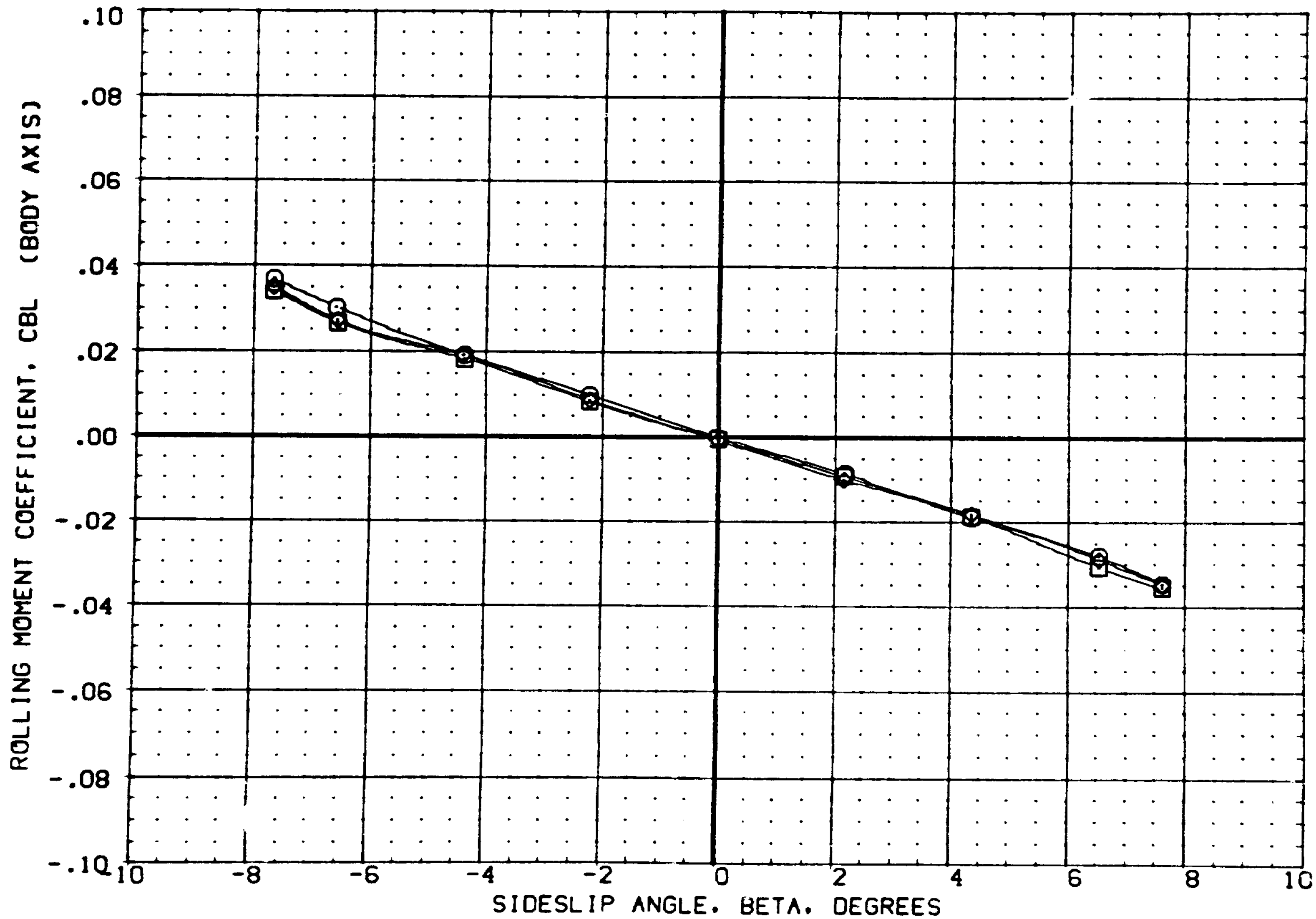


POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
B8Z105	○	AMES 87-710 IA12C 01 T1 S1	4.000			.000
B8Z147	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
B8Z190	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



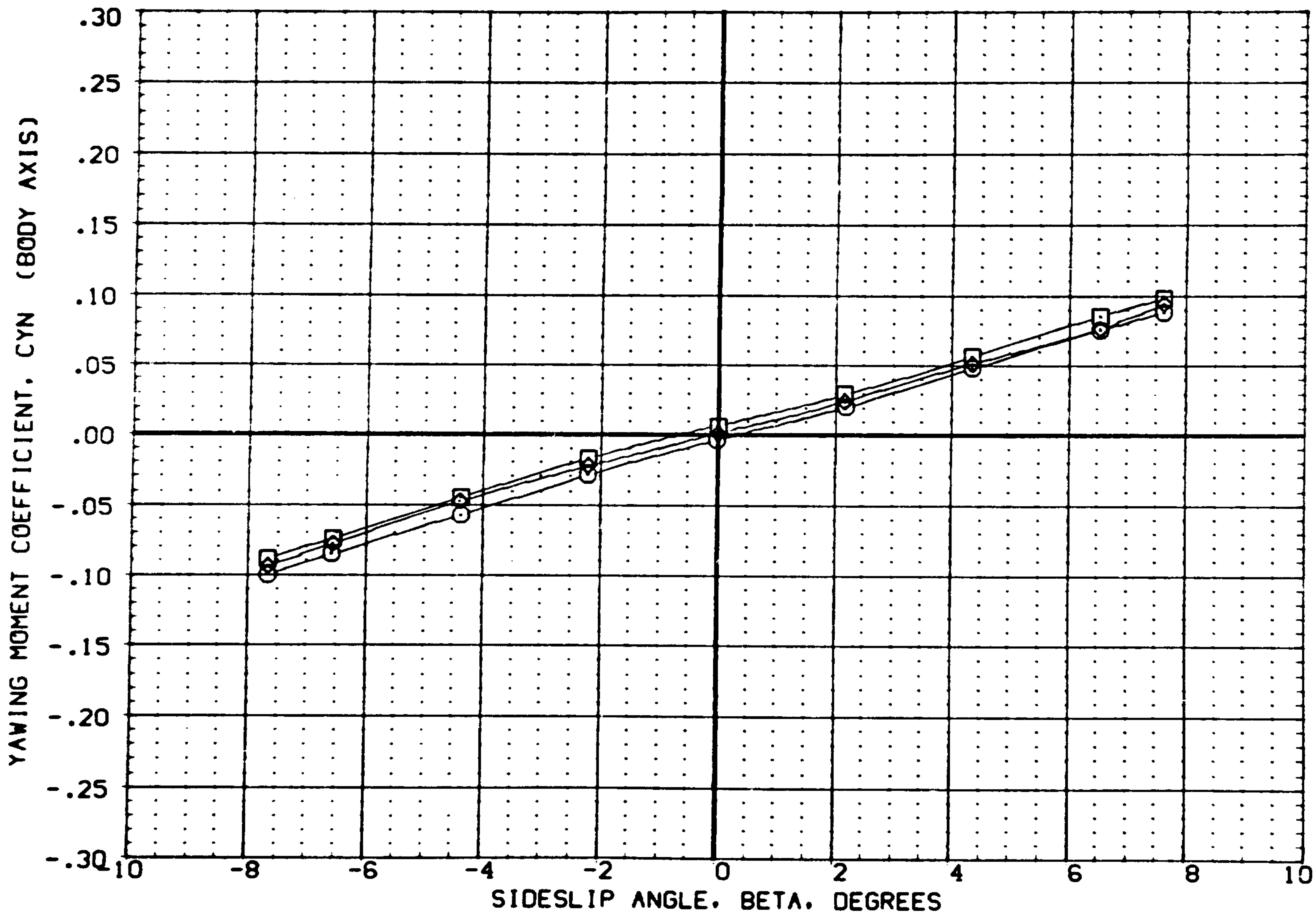
POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
5BZ105	○	AMES 87-710 IA12C C1 T1 S1	4.000			.000
5BZ047	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
5BZ[illegible]	◇	AMES 87-710 IA12C C1 T1 S1	3.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	GIMBAL	OPR	SRMPR	POWER
(BBZ105)	○	AMES 87-710 IA12C 01 T1 S1	4.000			.000
(BBZ047)	□	AMES 87-710 IA12C 01 T1 S1	1.000			.000
(BBZ090)	◇	AMES 87-710 IA12C 01 T1 S1	3.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
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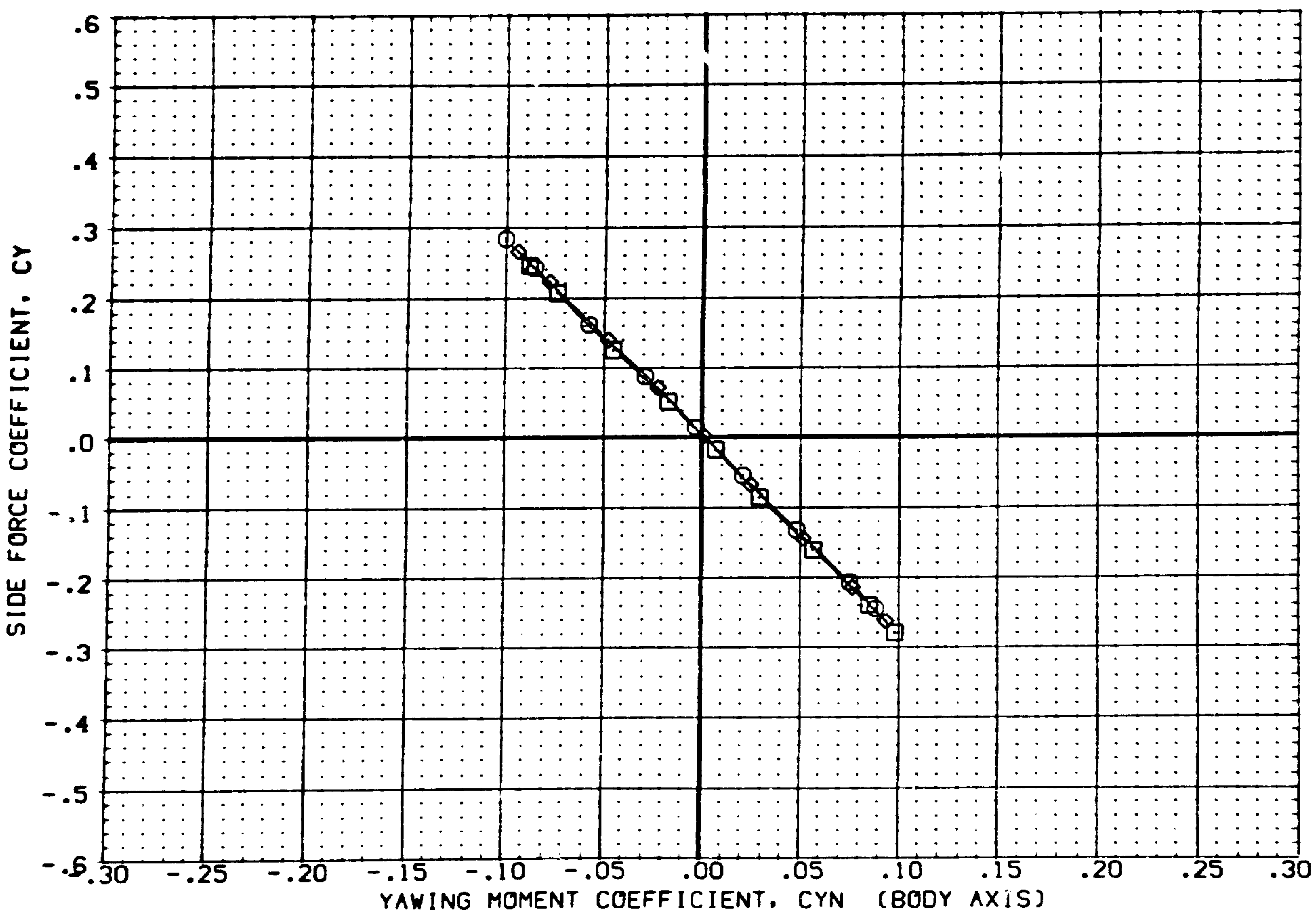
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



POWER-OFF GIMBAL ANGLE EFFECTS ON LATERAL CHARACTERISTICS

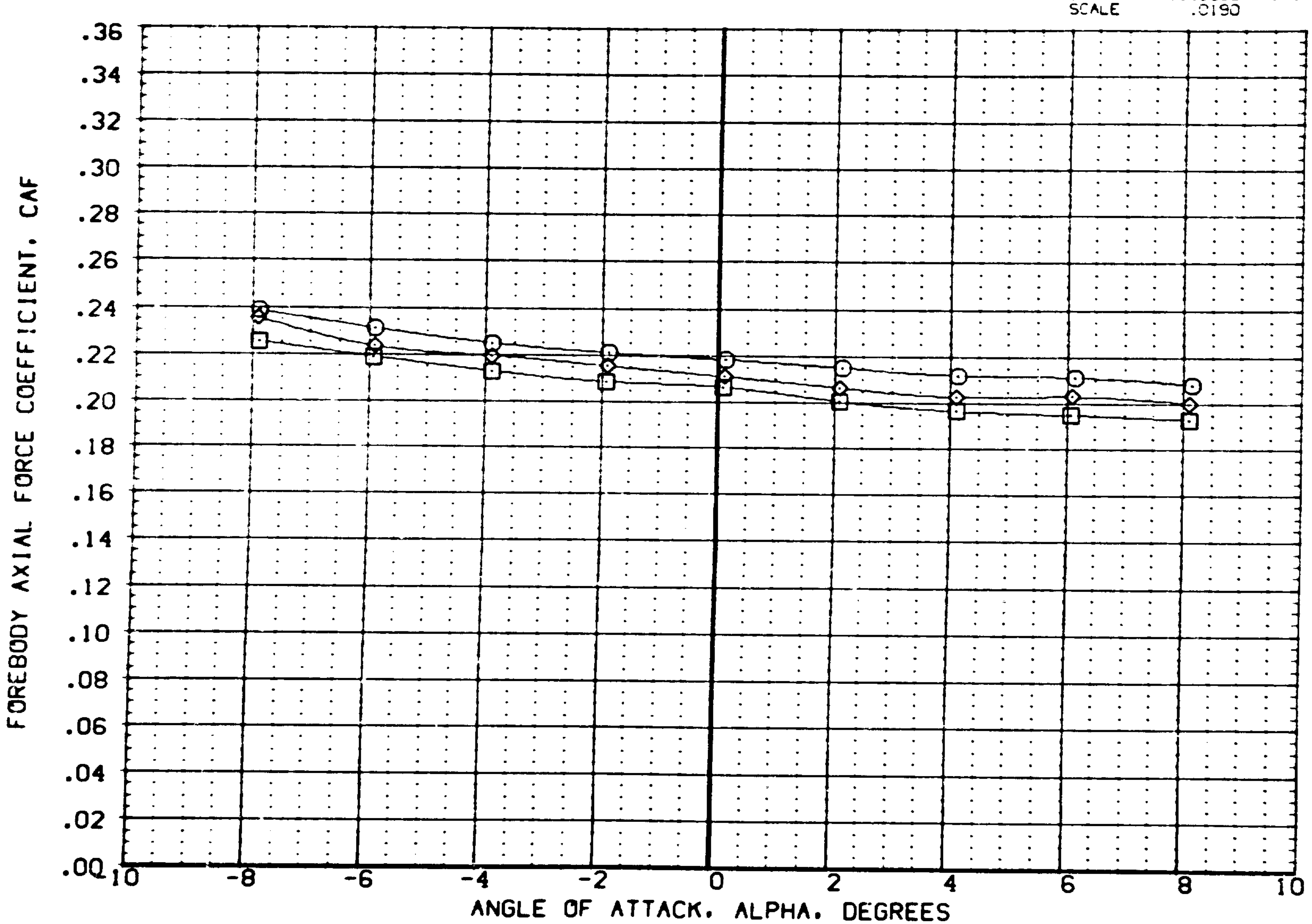
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
RBZ138	⊙	AMES 97-710 IA12C 01 T1 S1
RBZ104	⊡	AMES 97-710 IA12C 01 T1 S1
RBZ109	◇	AMES 97-710 IA12C 01 T1 S3

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000	26.660	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	950.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



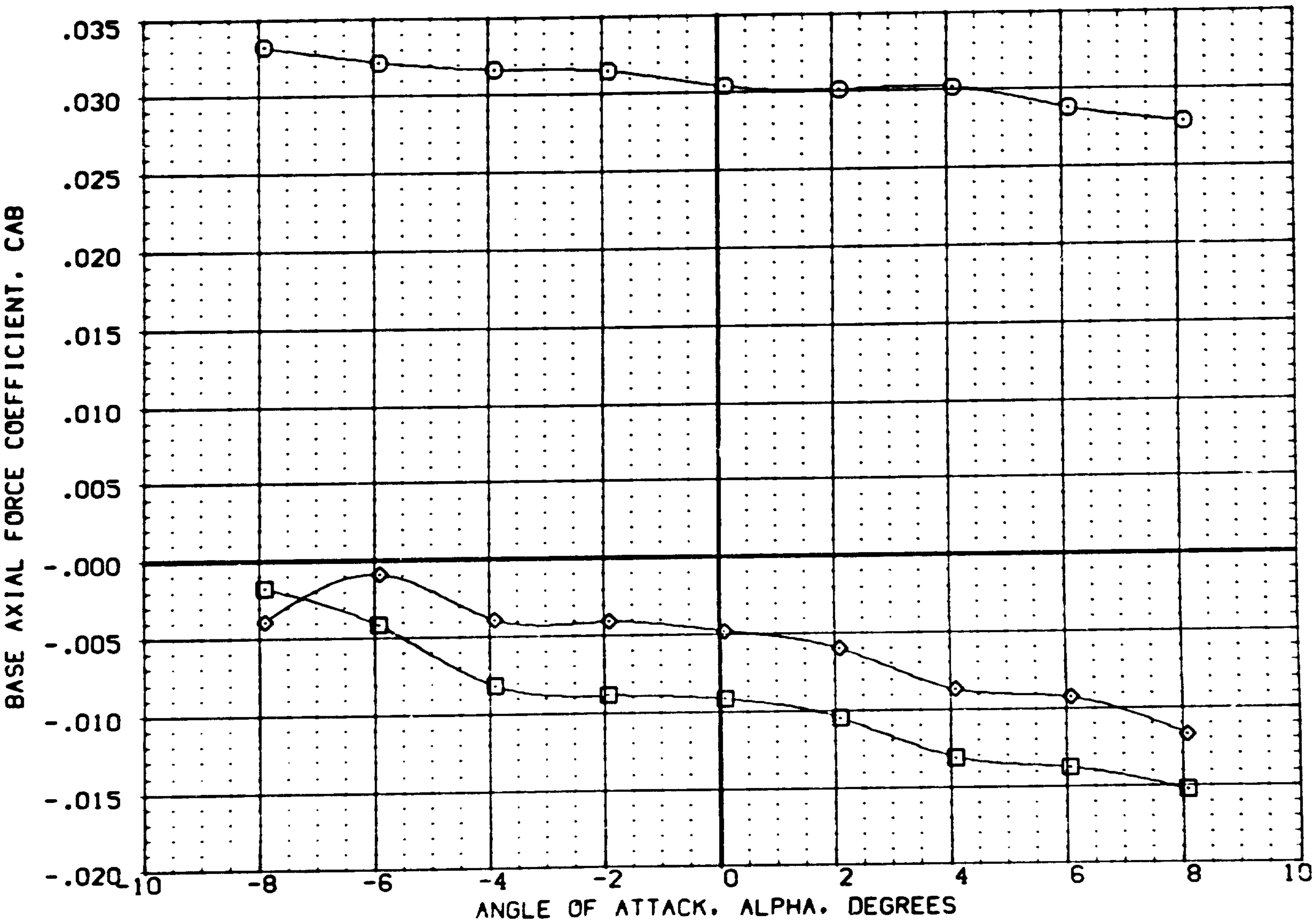
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ04)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(CBZ109)	◇	AMES 87-710 IA12C 01 T1 S3	.000	26.860	.768	1.000

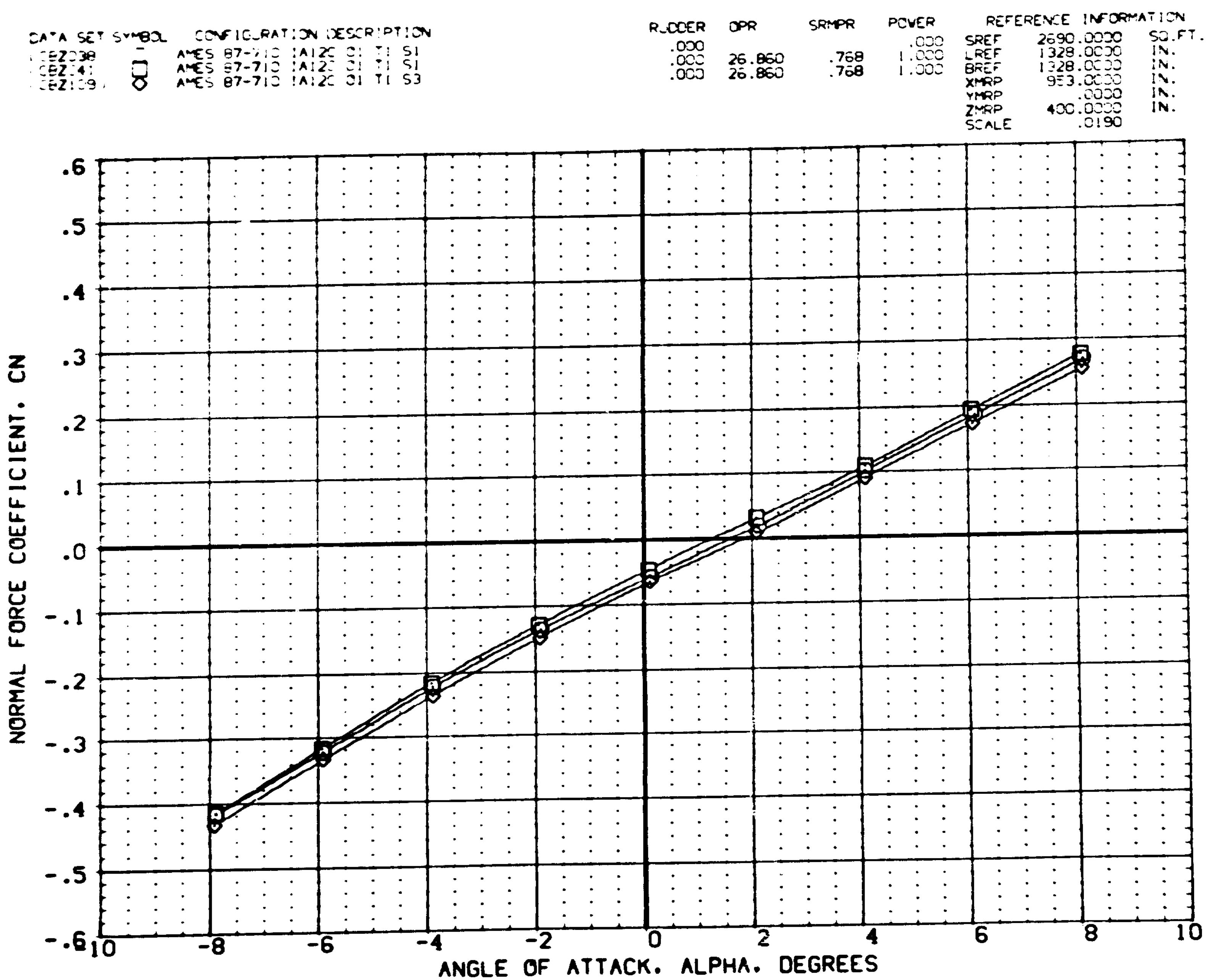
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



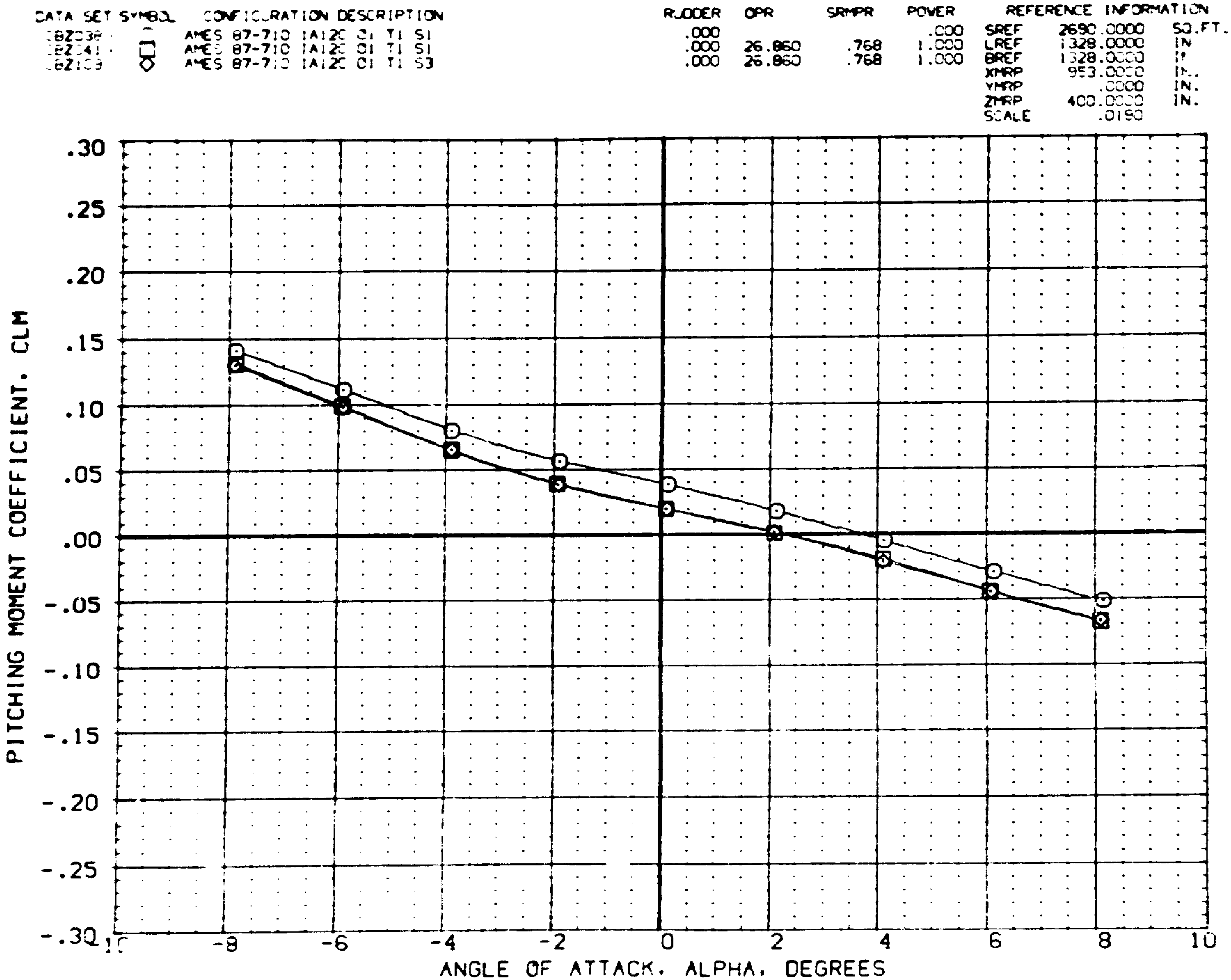
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00



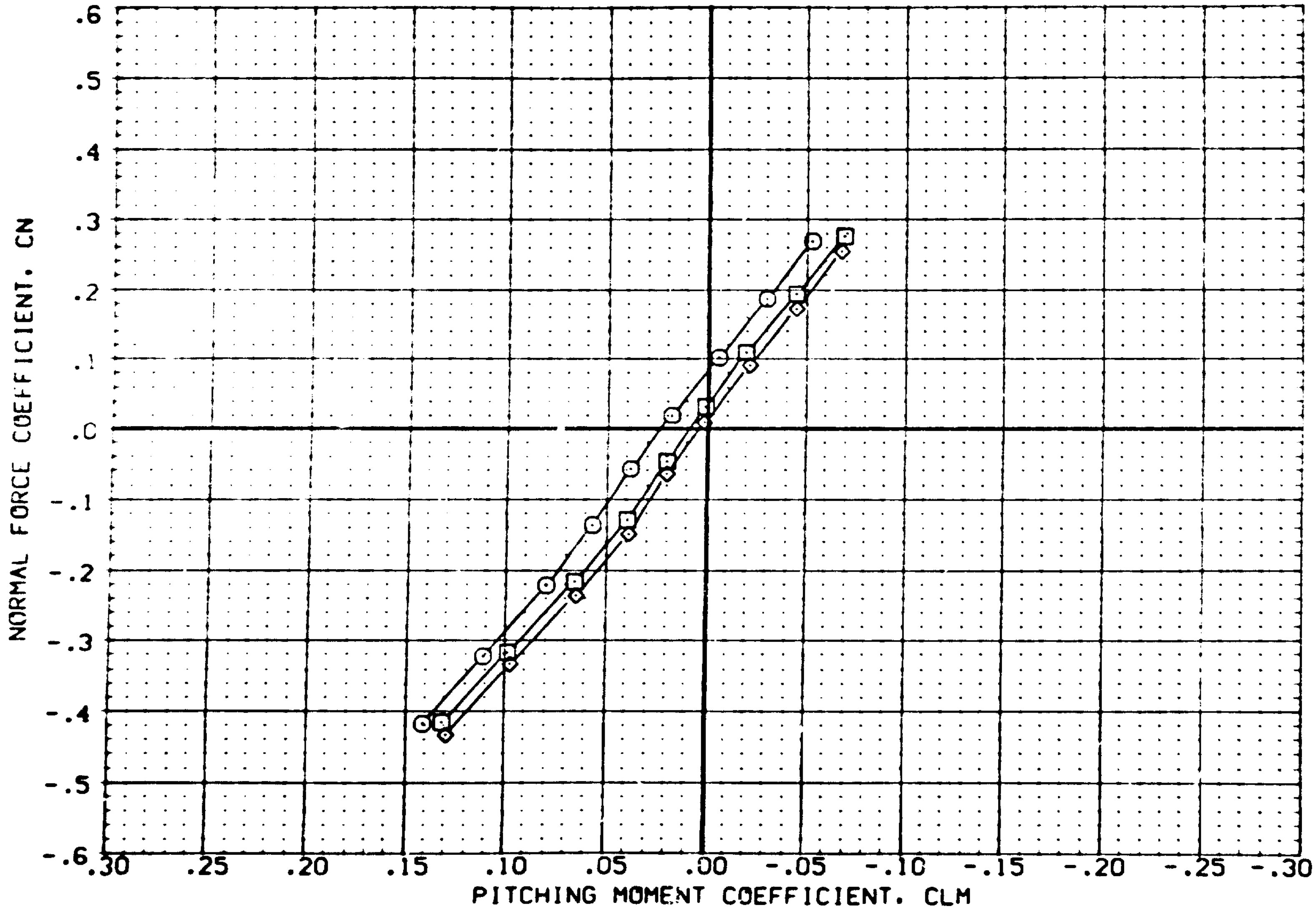
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
IBZ034	⊙	AMES 97-710 (A120 C1 T1 S1	.000			.000
IBZ141	⊡	AMES 97-710 (A120 C1 T1 S1	.000	26.860	.768	1.000
IBZ155	◇	AMES 97-710 (A120 C1 T1 S3	.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



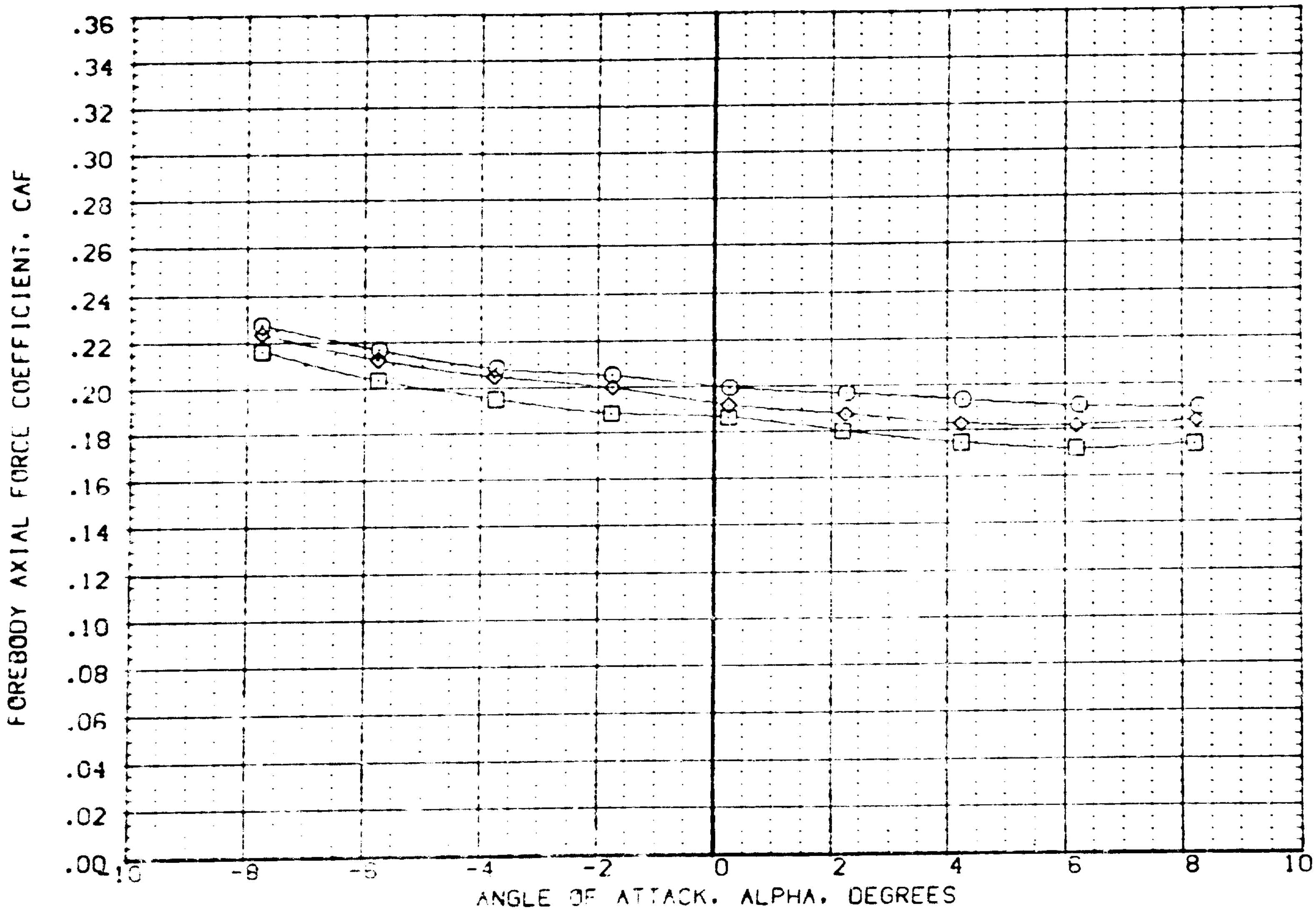
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
[illegible]	○	AMES 87-710 IA12 [illegible] T[illegible] S1	.000			.000
[illegible]	□	AMES 87-710 IA12 [illegible] T[illegible] S1	.000	23.860	.826	1.000
[illegible]	◇	AMES 87-710 IA12 [illegible] T[illegible] S3	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



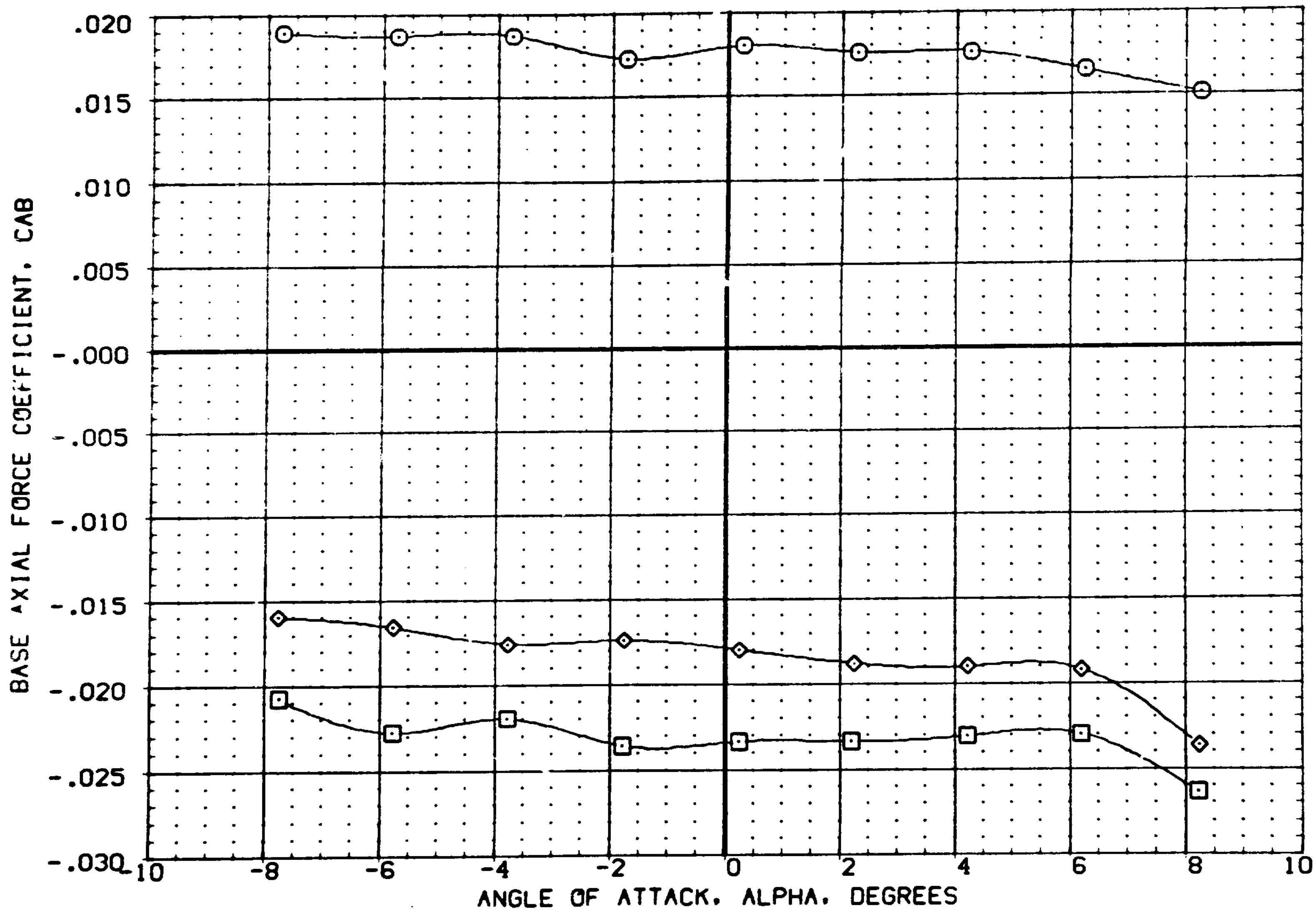
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA120 C1 T1 S1	.000			.000
(CBZ050)	□	AMES 87-710 IA120 C1 T1 S1	.000	23.860	.826	1.000
(CBZ112)	◇	AMES 87-710 IA120 C1 T1 S3	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



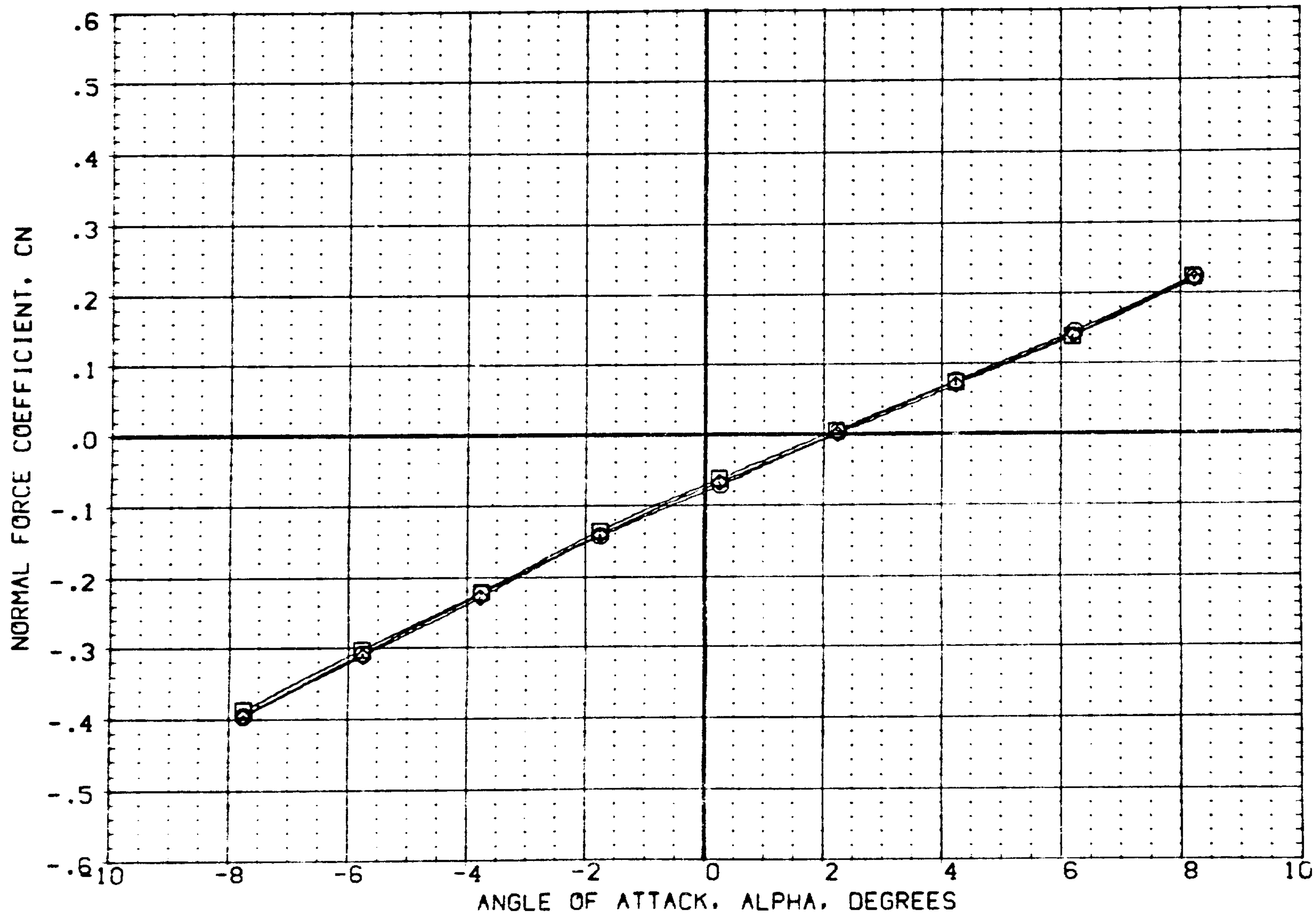
SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
RBZ046	▢	AMES 87-710 IA12C C1 T1 S1
RBZ050	○	AMES 87-710 IA12C C1 T1 S1
RBZ112	◇	AMES 87-710 IA12C C1 T1 S3

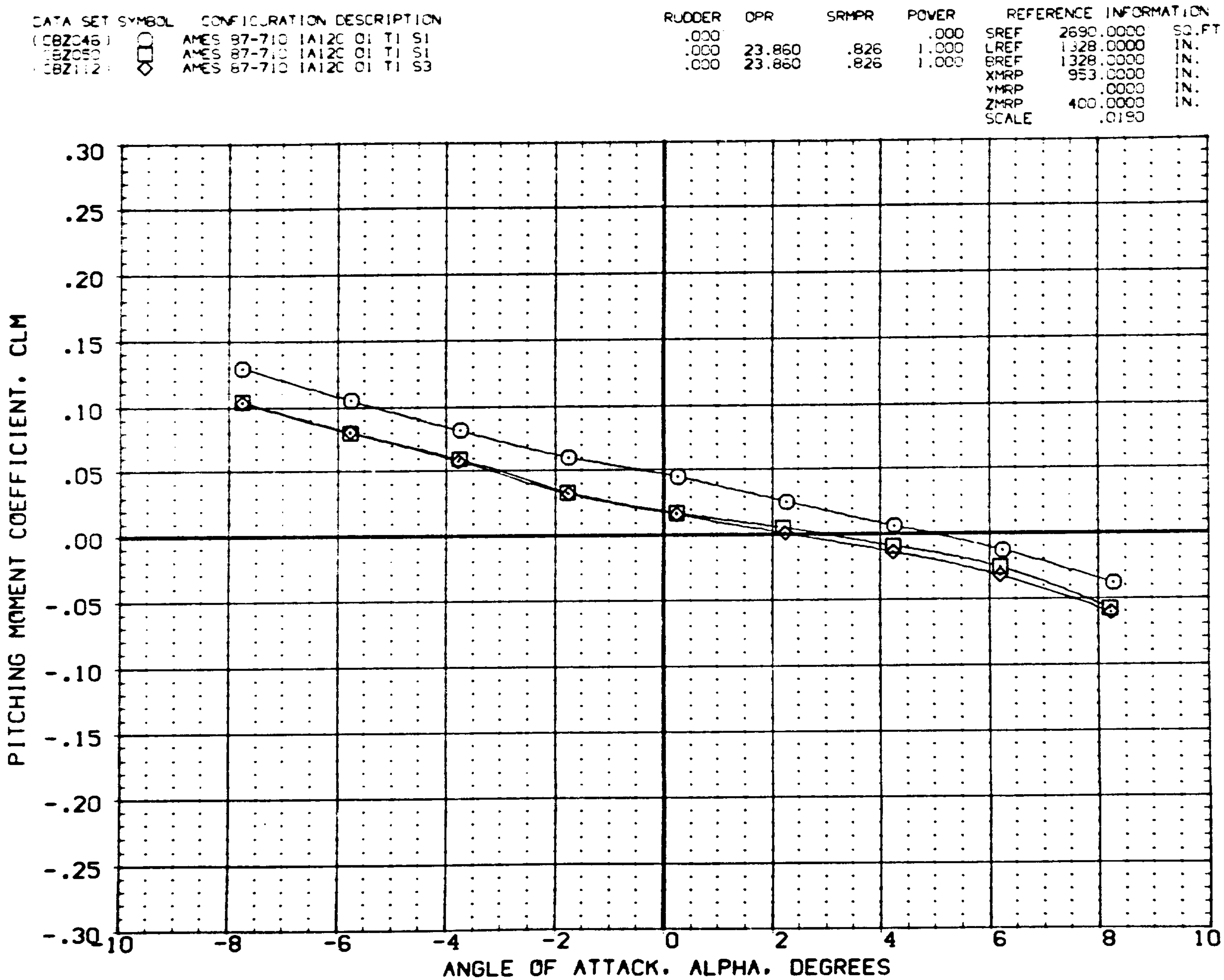
RUDDER	OPR	SRMPR	POWER
.000			.000
.000	23.860	.826	1.000
.000	23.860	.826	1.000

REFERENCE	INFORMATION	
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

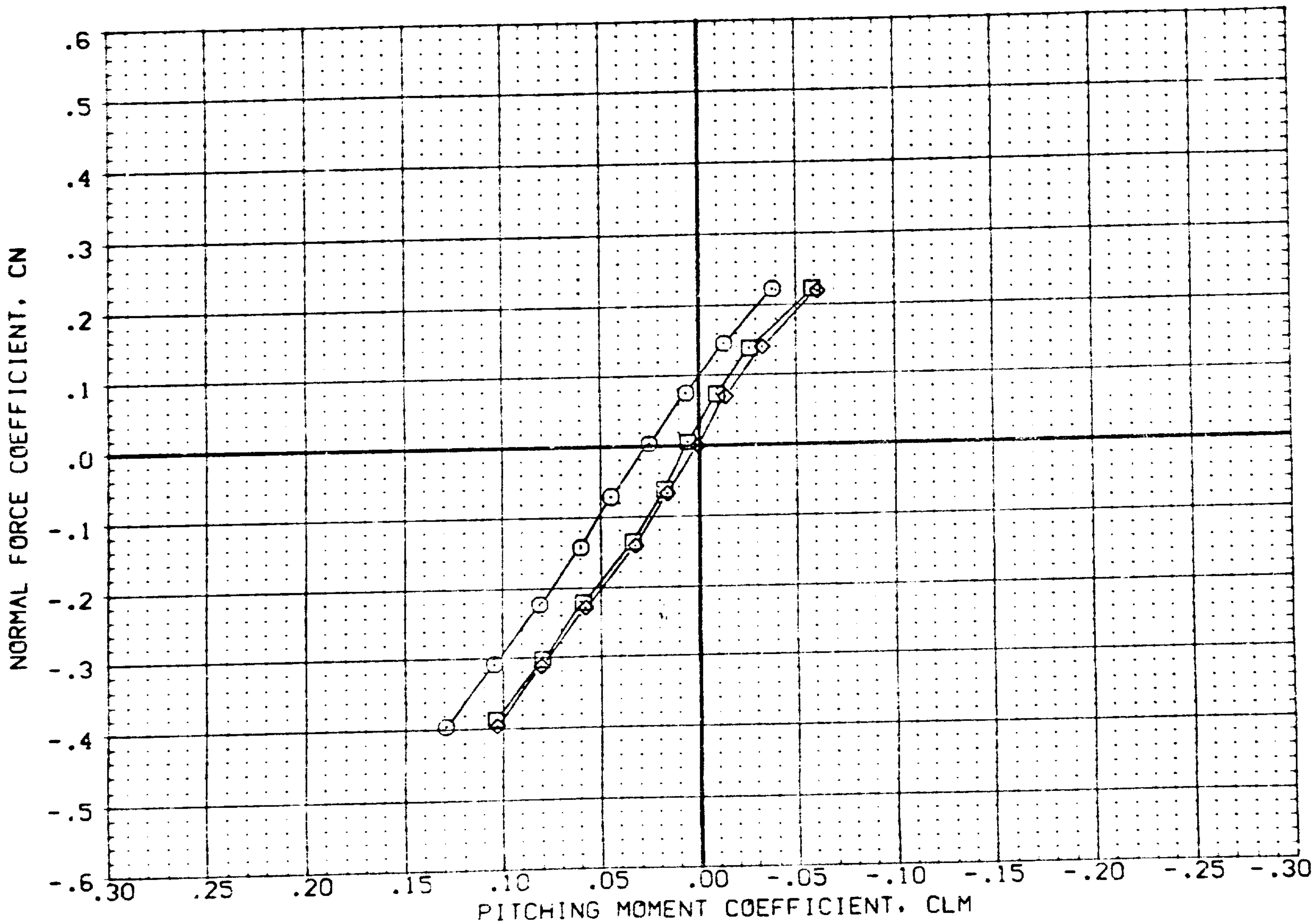
(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BZ046	⊙	AMES 87-710 IA120 O1 T1 S1
BZ050	⊡	AMES 87-710 IA120 O1 T1 S1
BZ112	◇	AMES 87-710 IA120 O1 T1 S3

RUDDER	DPR	SRMPR	POWER
.000			.000
.000	23.860	.826	1.000
.000	23.860	.826	1.000

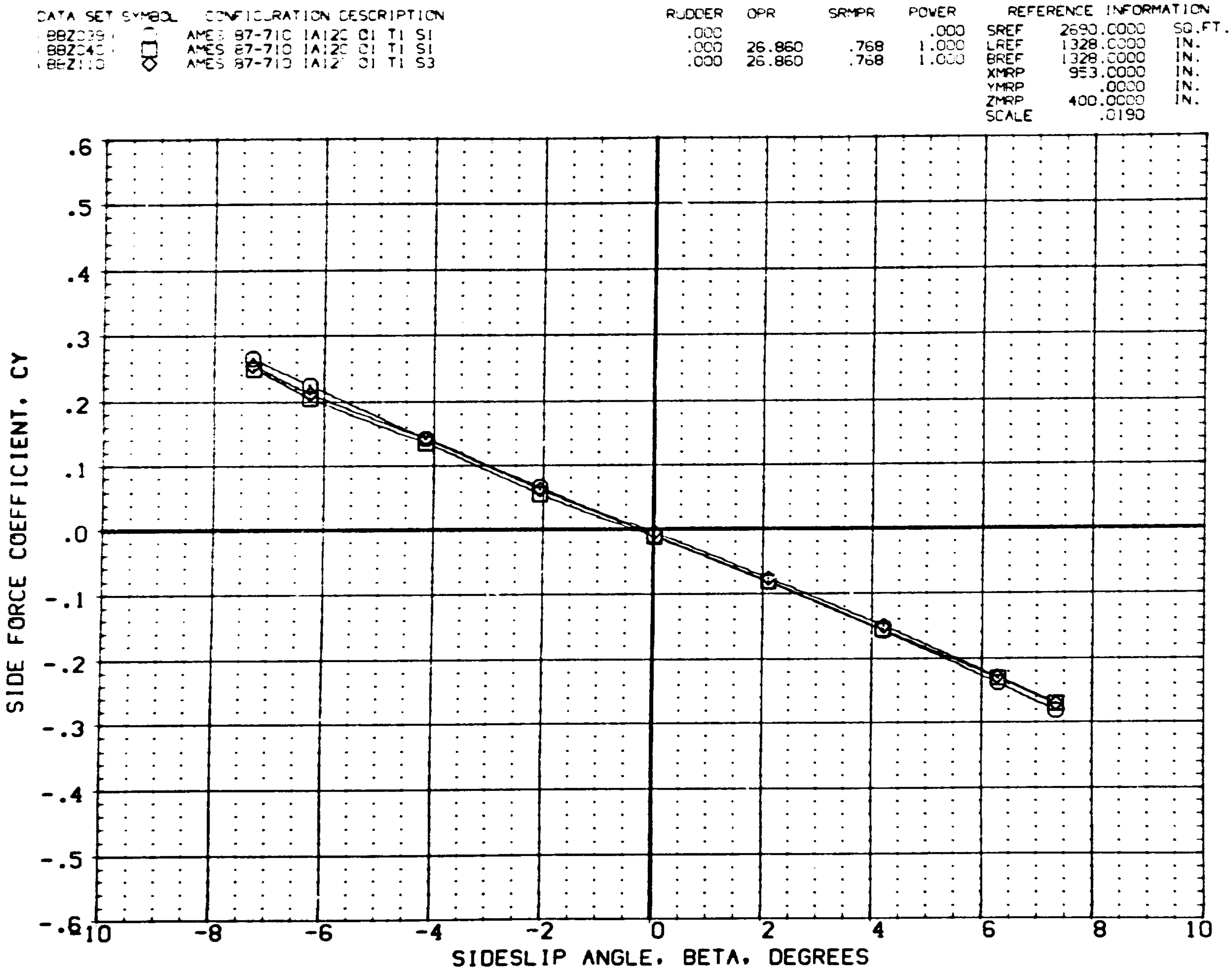
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



SRB PLUME MISMATCH EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

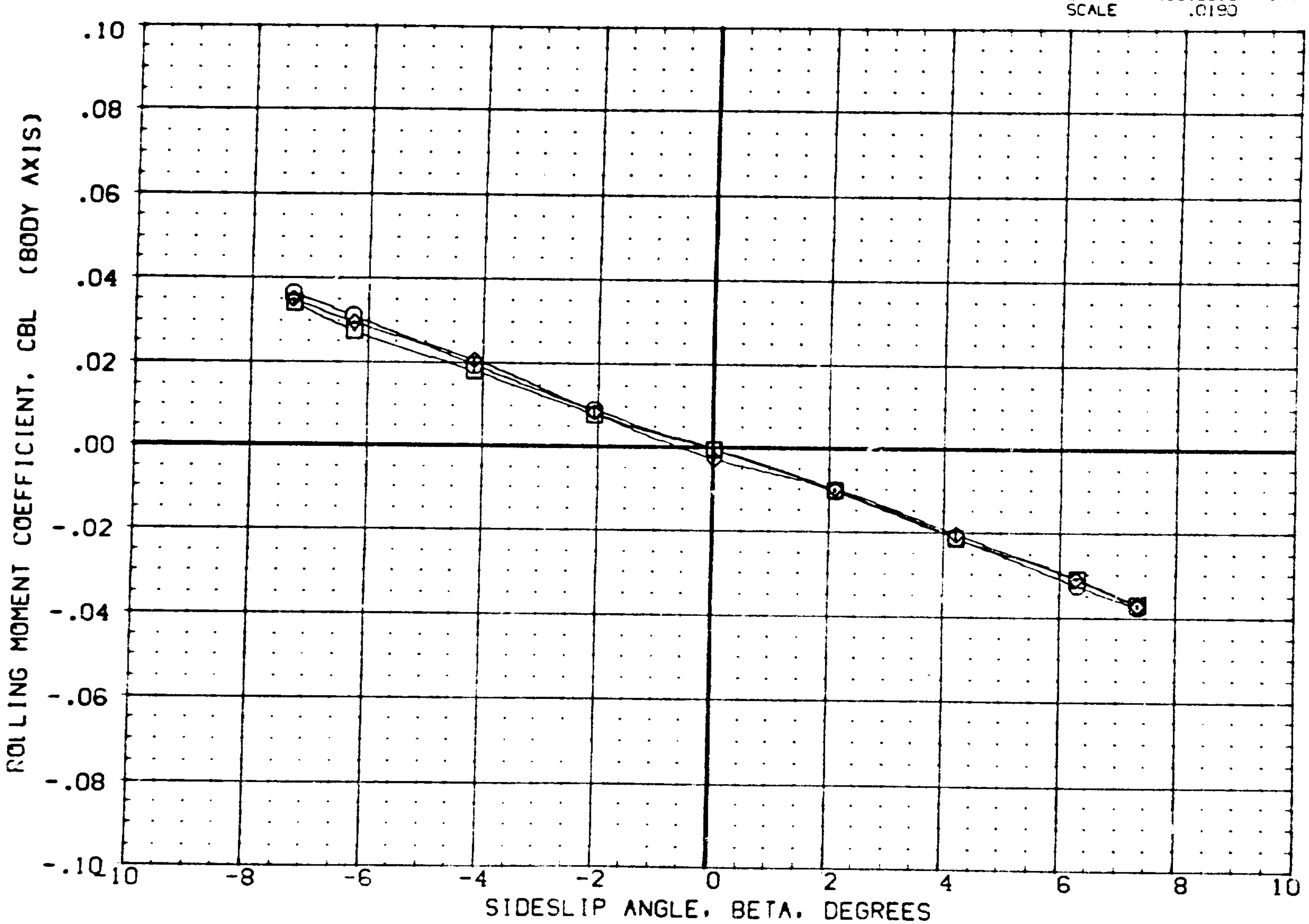
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
6BZ039	○	AMES 87-710 IA12C OI TI SI
6BZ040	□	AMES 87-710 IA12C OI TI SI
6BZ110	◇	AMES 87-710 IA12C OI TI S3

RUDDER	DPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000	26.860	.768	1.000

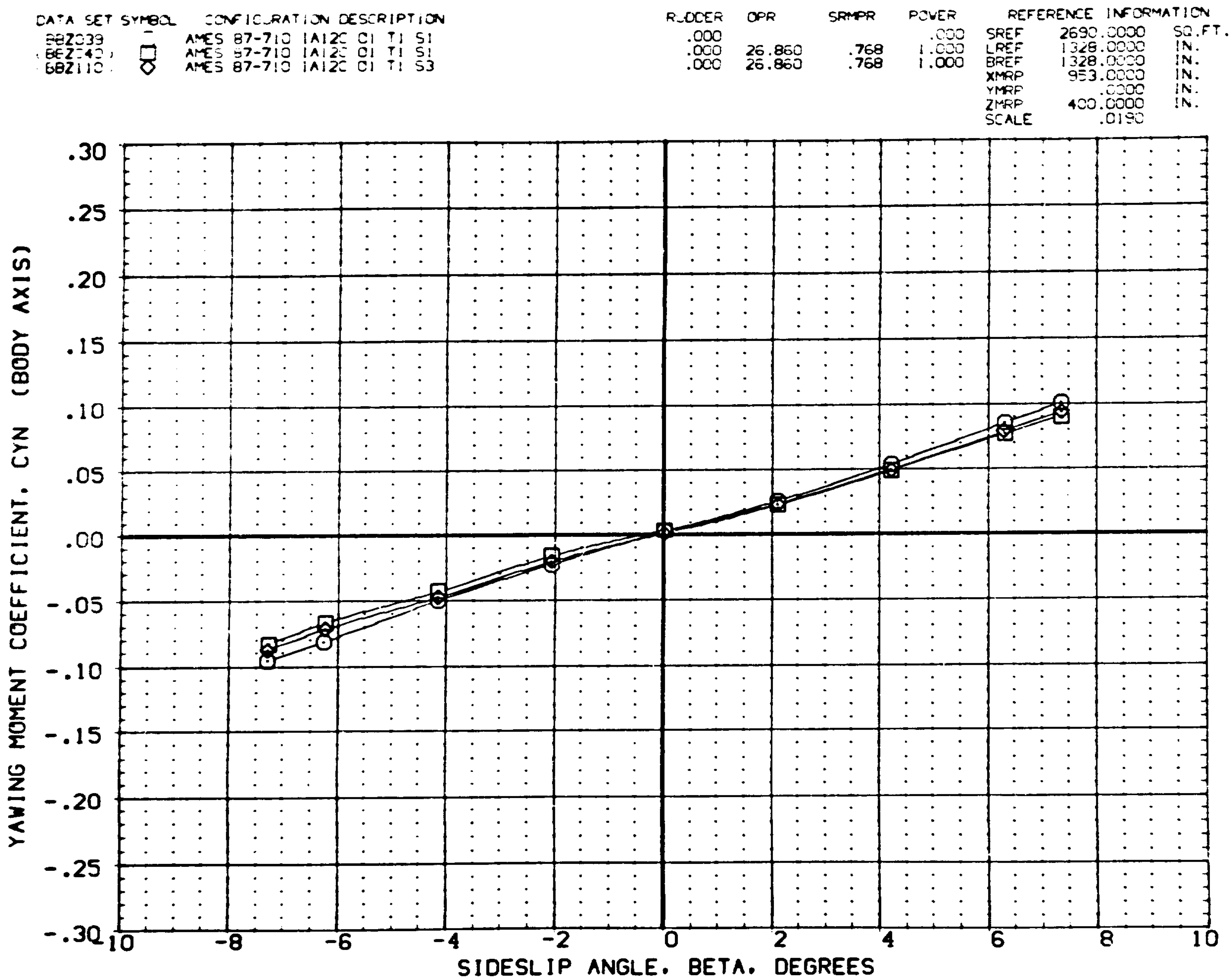
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00



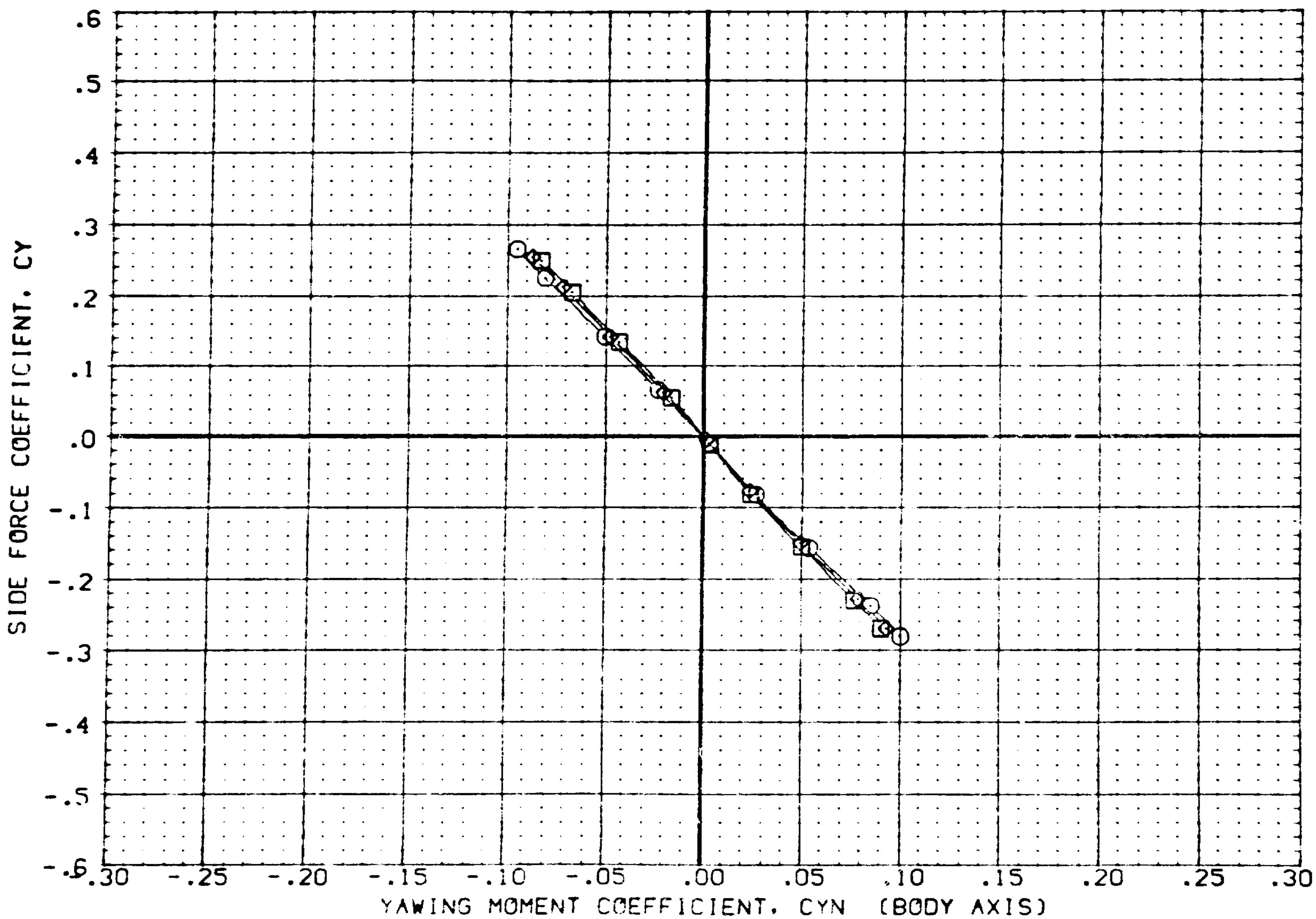
SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ0[illegible]	○	AMES 87-710 IA120 O1 T1 S1	.000			.000
6BZ040	□	AMES 87-710 IA120 O1 T1 S1	.000	26.860	.768	1.000
6BZ[illegible]	◇	AMES 87-710 IA120 O1 T1 S3	.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

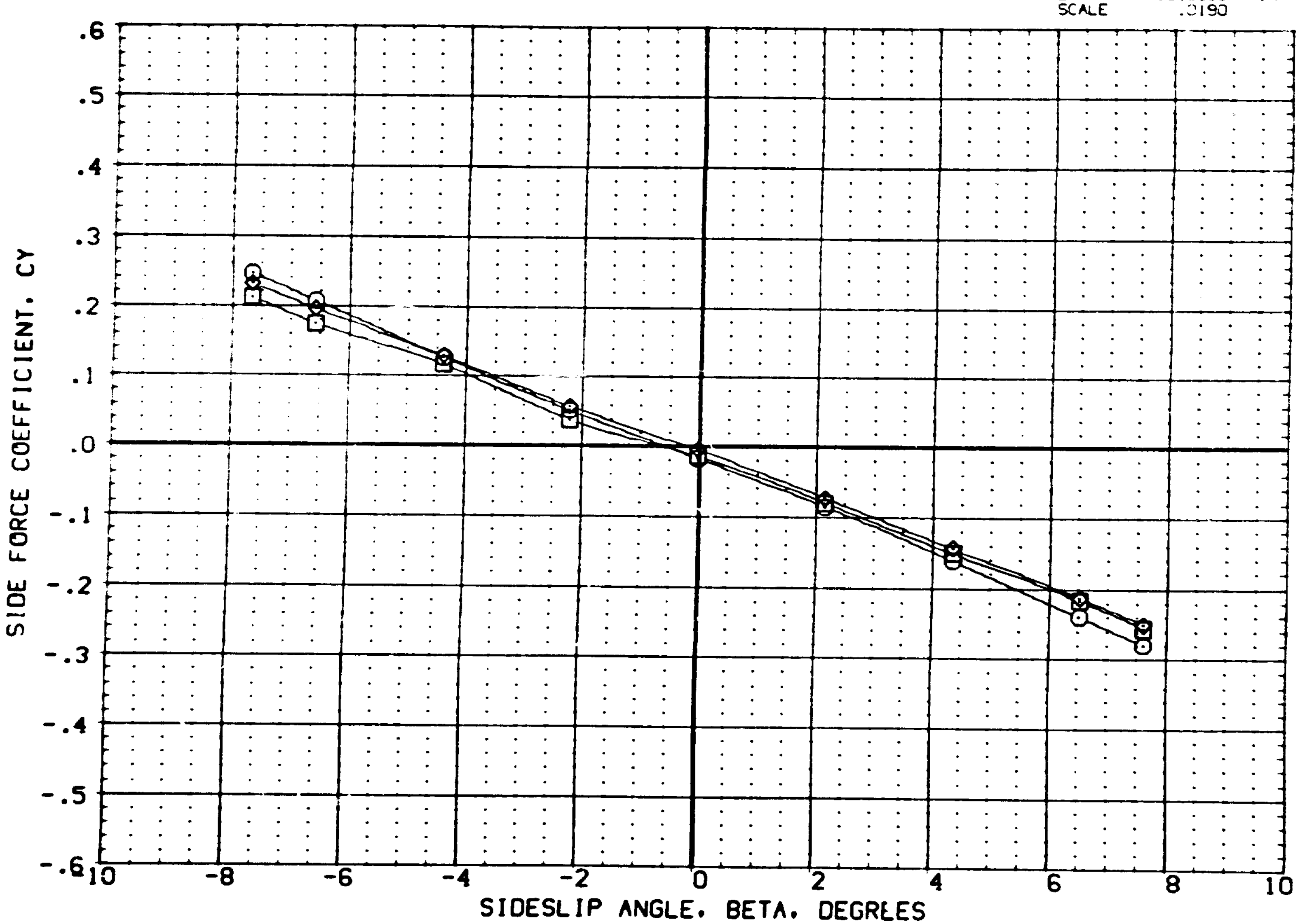


SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ047	○	AMES 67-710 IA12C O1 T1 S1	.000			.000
BBZ051	□	AMES 67-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
BBZ113	◇	AMES 67-710 IA12C O1 T1 S3	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



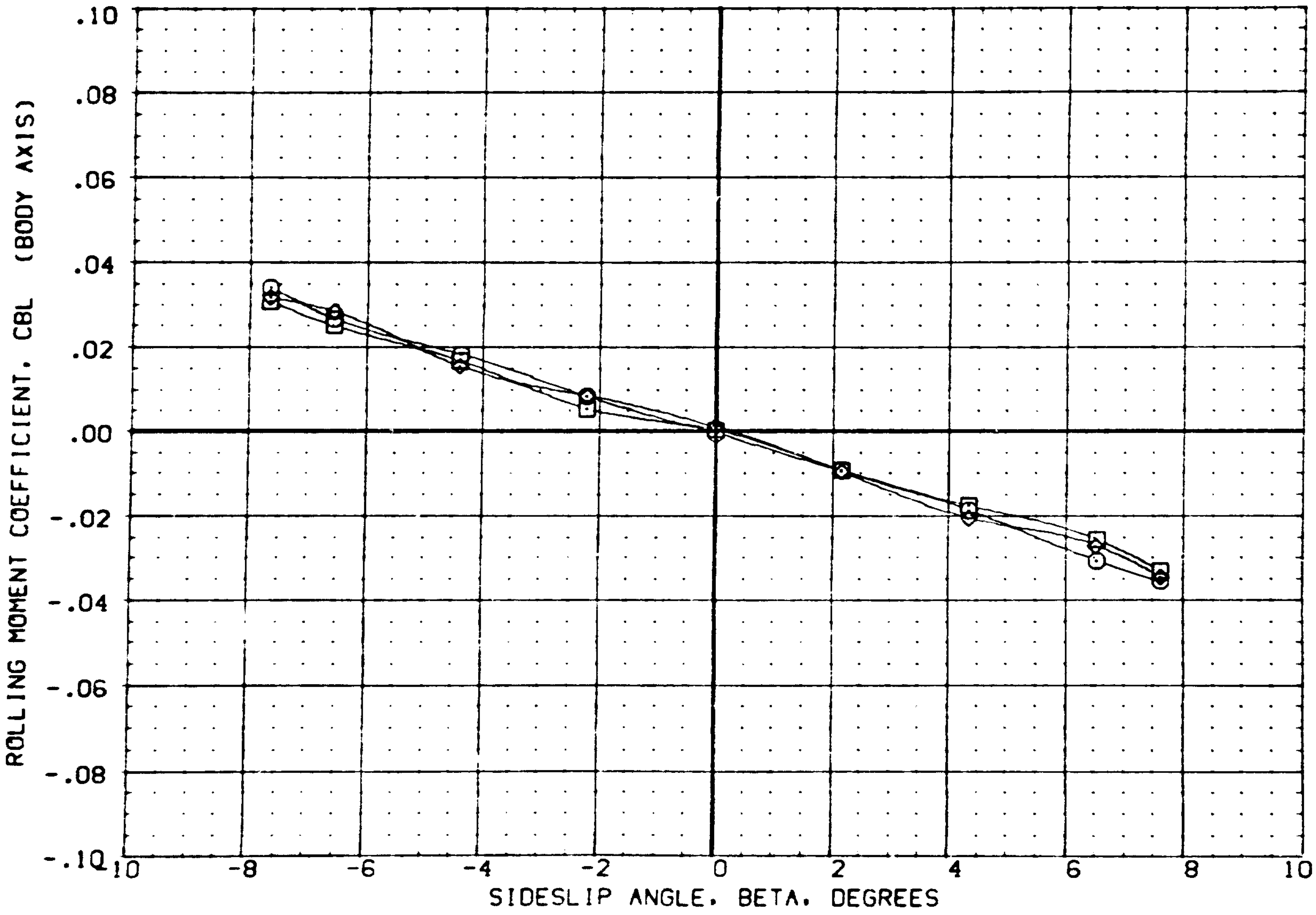
SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
RBZ147	○	AMES 87-710 IA120 C1 T1 S1	.000			.000
RBZ051	□	AMES 87-710 IA120 C1 T1 S1	.000	23.860	.826	1.000
RBZ113	◇	AMES 87-710 IA120 C1 T1 S3	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



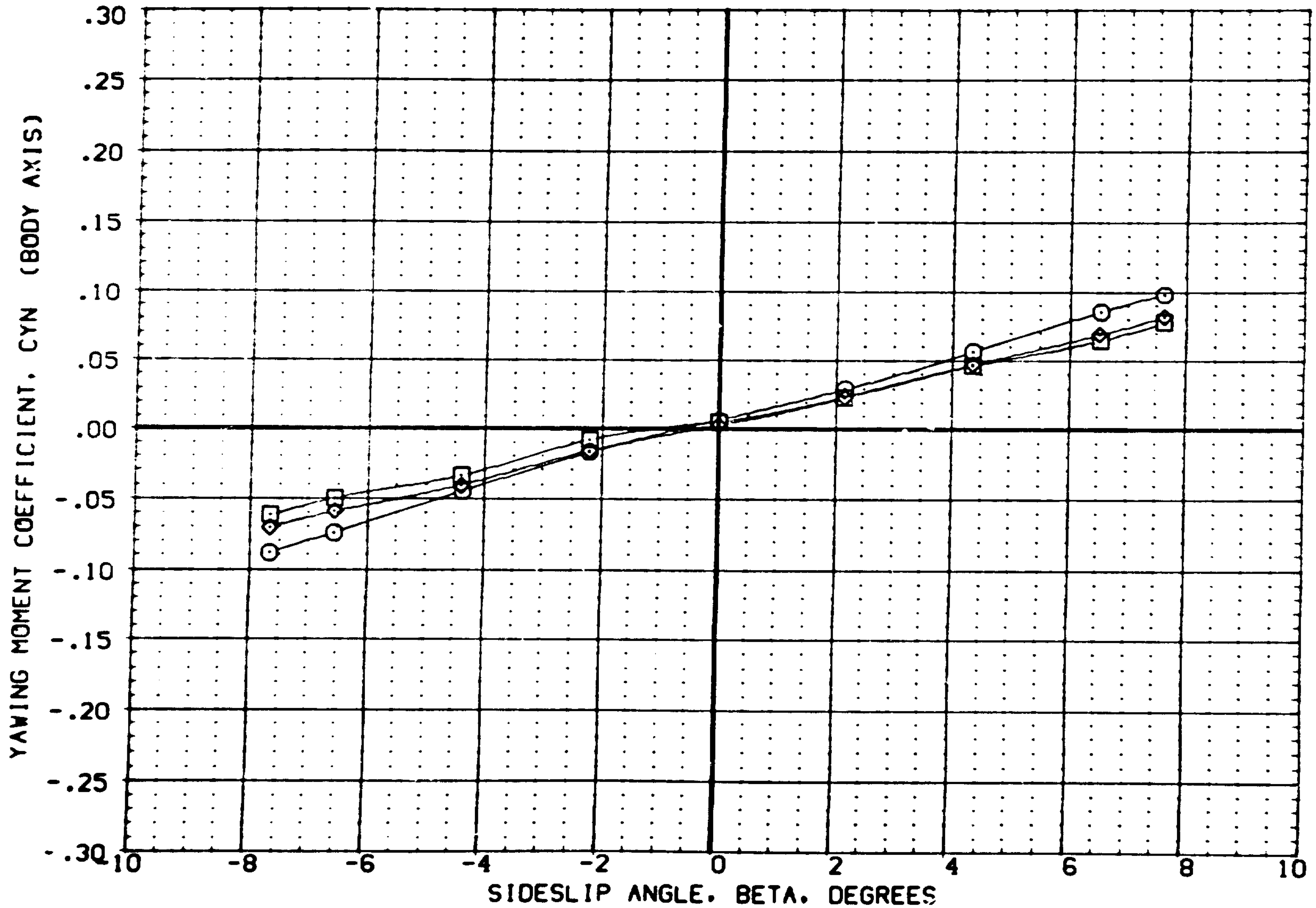
SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	DFR	SRMPR	POWER
BBZ047	⊙	AMES 87-710 IA120 C1 T1 S1	.000			.000
BBZ051	□	AMES 87-710 IA120 C1 T1 S1	.000	23.860	.826	1.000
BBZ053	◇	AMES 87-710 IA120 C1 T1 S3	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



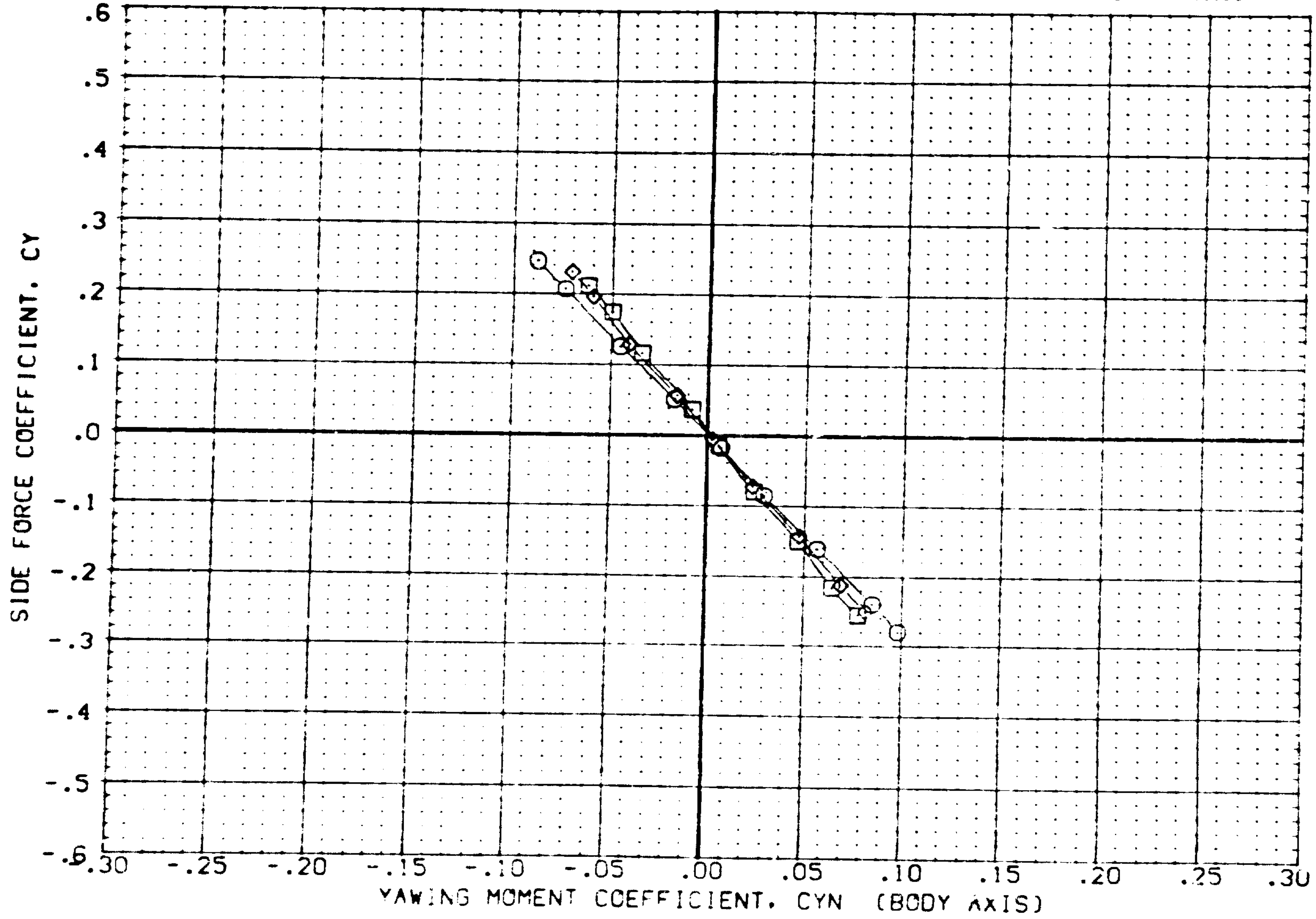
SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BEZ147	○	AMES 67-710 IA120 C1 T1 S1	.000			.000
BEZ051	□	AMES 67-710 IA120 C1 T1 S1	.000	23.860	.826	1.000
BEZ113	◇	AMES 67-710 IA120 C1 T1 S3	.000	23.860	.826	1.000

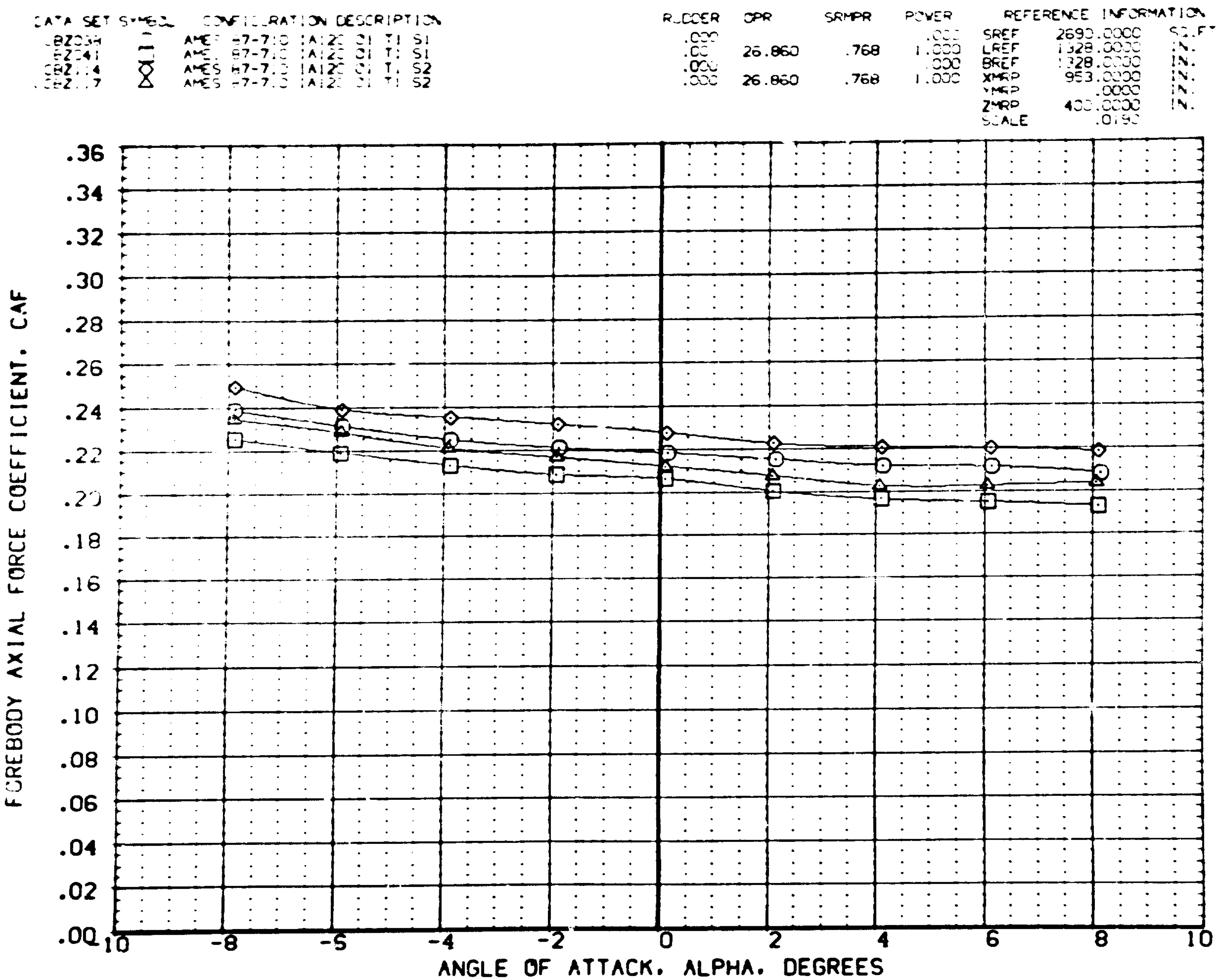
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



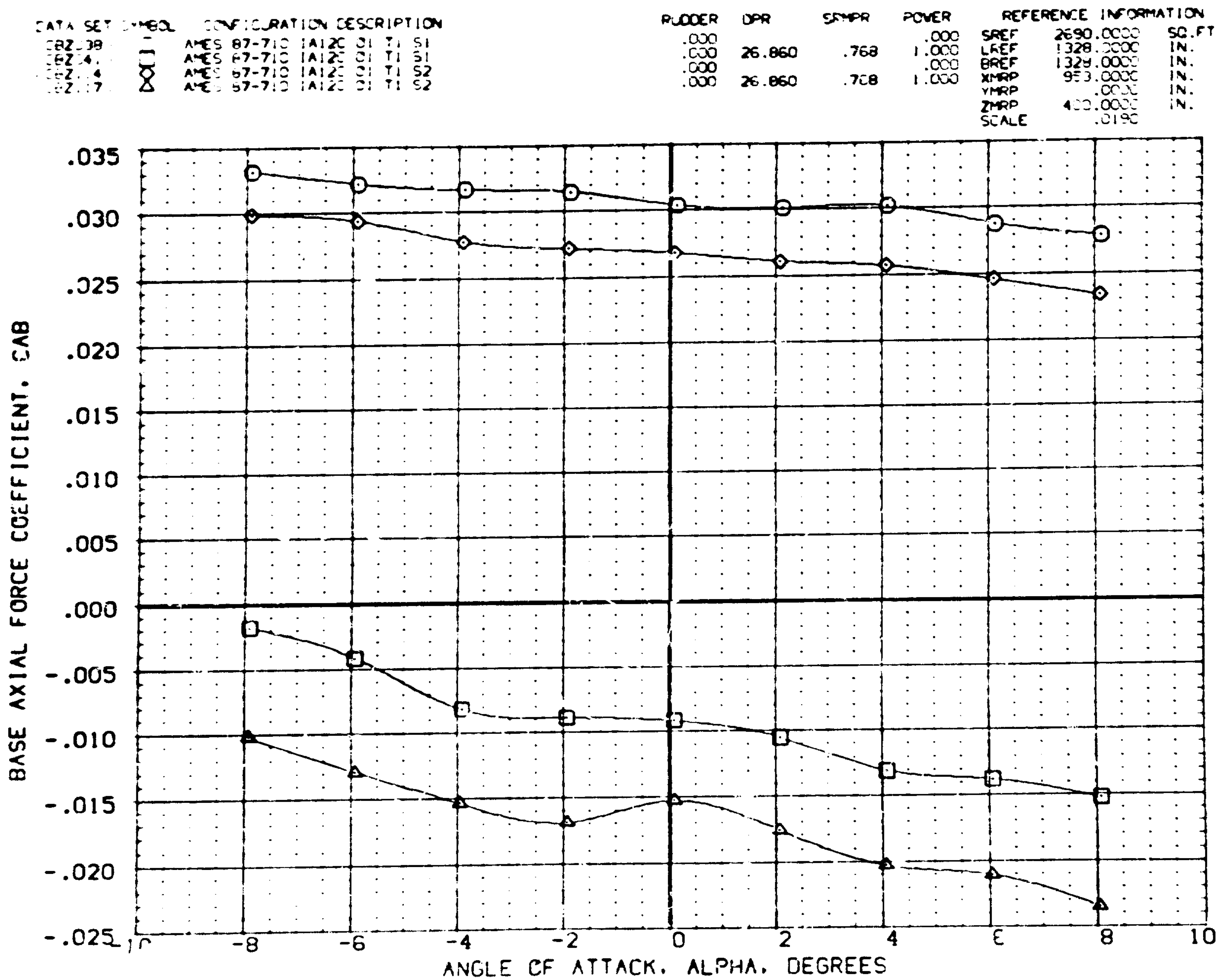
SRB PLUME MISMATCH EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50



PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

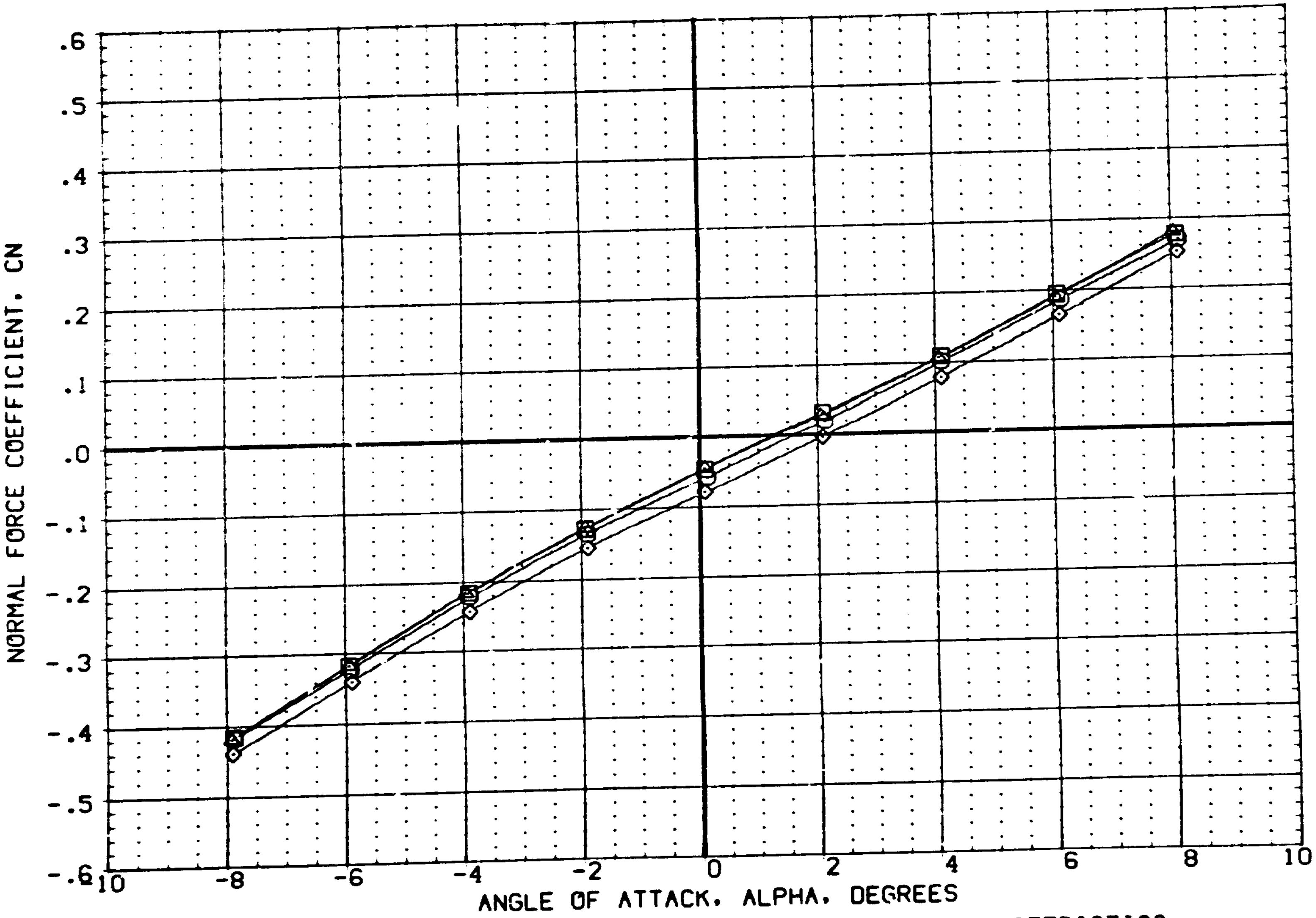


PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ038	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
CBZ041	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
CBZ114	◇	AMES 87-710 IA12C 01 T1 S2	.000			.000
CBZ117	△	AMES 87-710 IA12C 01 T1 S2	.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

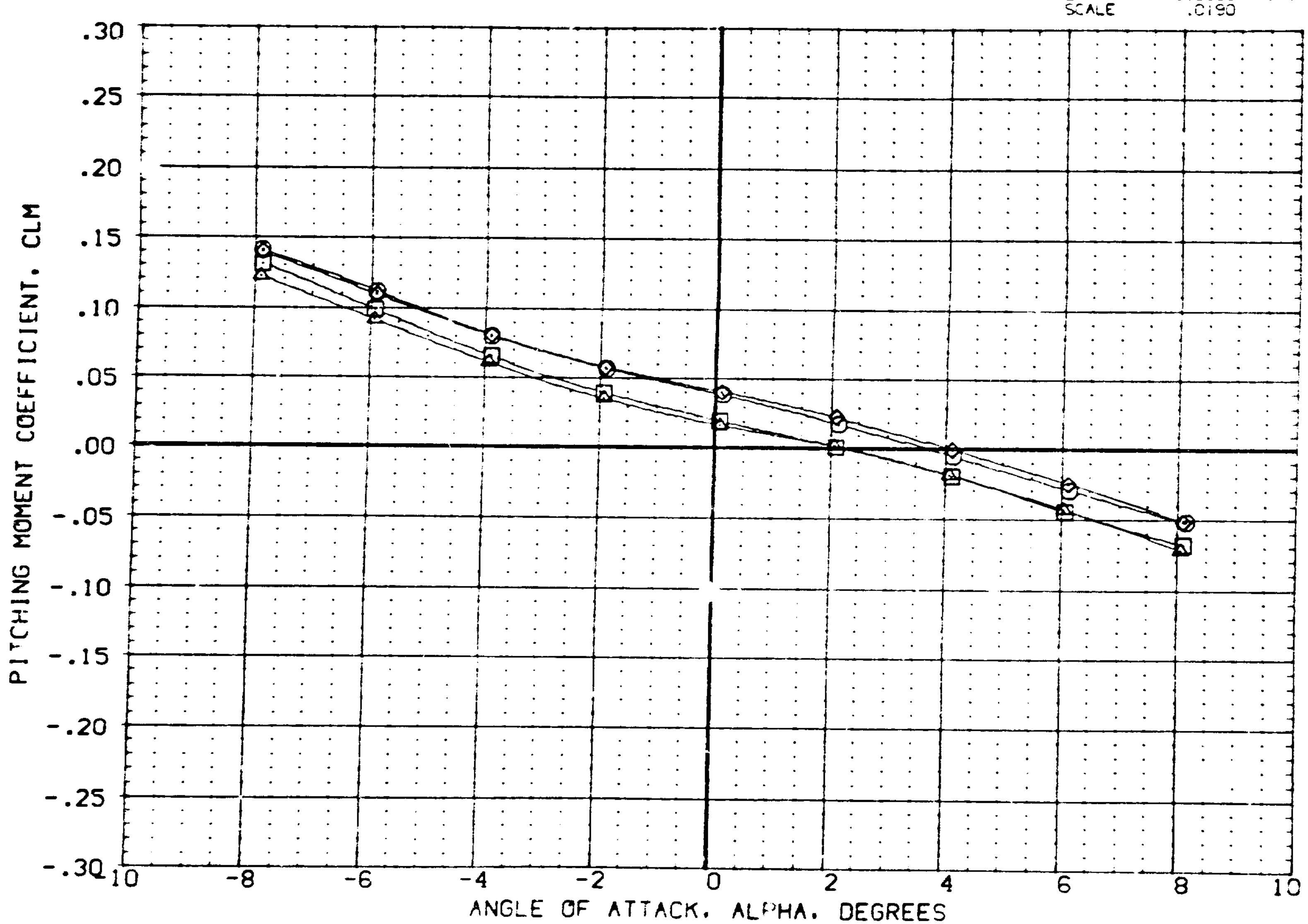


PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
CBZ[illegible]		AMES 87-710 (A12C C1 T1 S1	.000			.000
CBZ[illegible]	□	AMES 87-710 (A12C C1 T1 S1	.000	26.860	.768	1.000
CBZ[illegible]4	◇	AMES 87-710 (A12C C1 T1 S2	.000			.000
CBZ[illegible]7	△	AMES 87-710 (A12C C1 T1 S2	.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

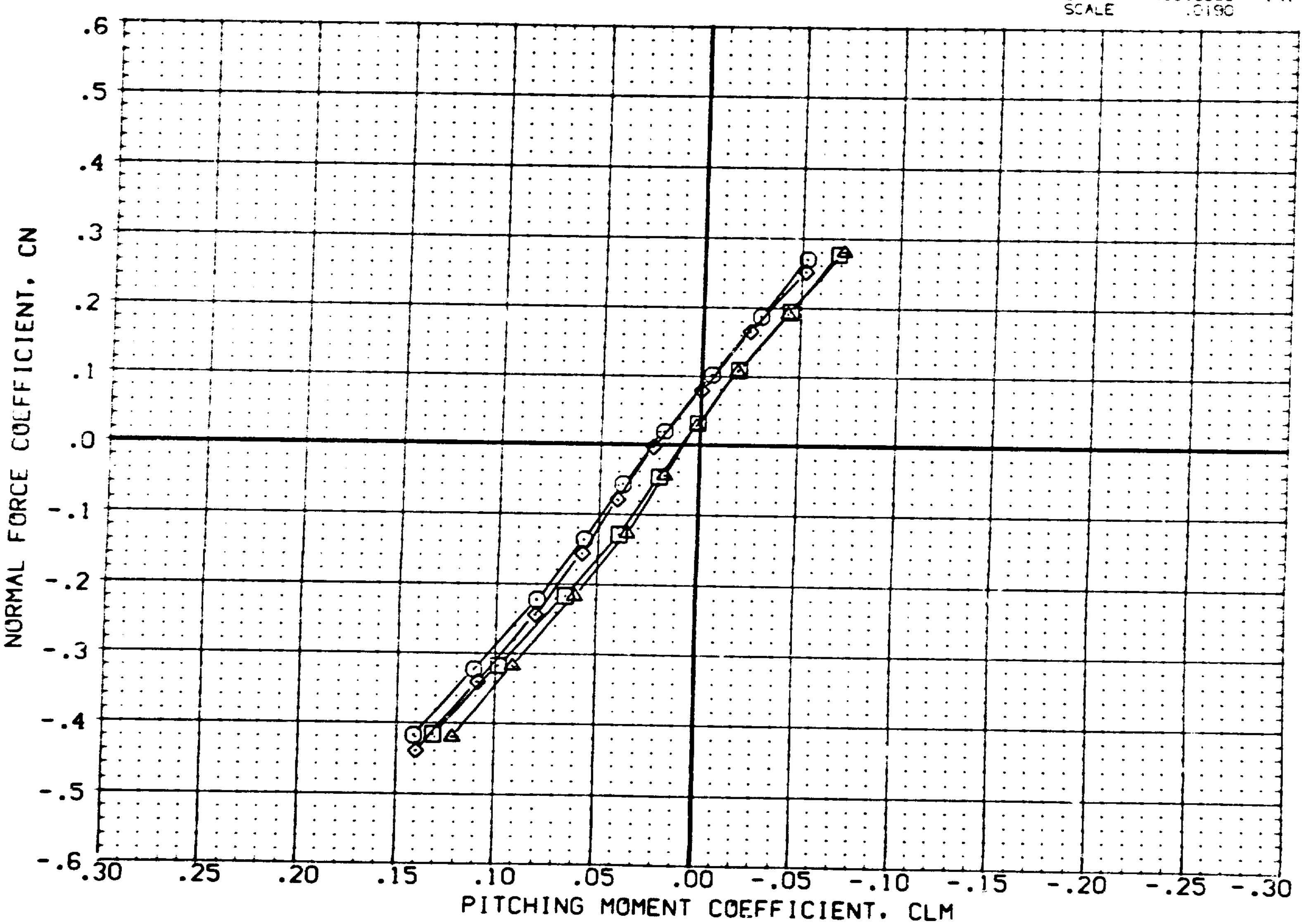
(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
CBZ038	○	AMES 87-710 (A120 C1 T1 S1
CBZ041	□	AMES 87-710 (A120 C1 T1 S1
CBZ114	◇	AMES 87-710 (A120 C1 T1 S2
CBZ117	△	AMES 87-710 (A120 C1 T1 S2

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000			.000
.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDEP	OPR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
(BZ050)	□	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
(BZ118)	◇	AMES 87-710 IA12C O1 T1 S2	.000			.000
(BZ121)	△	AMES 87-710 IA12C O1 T1 S2	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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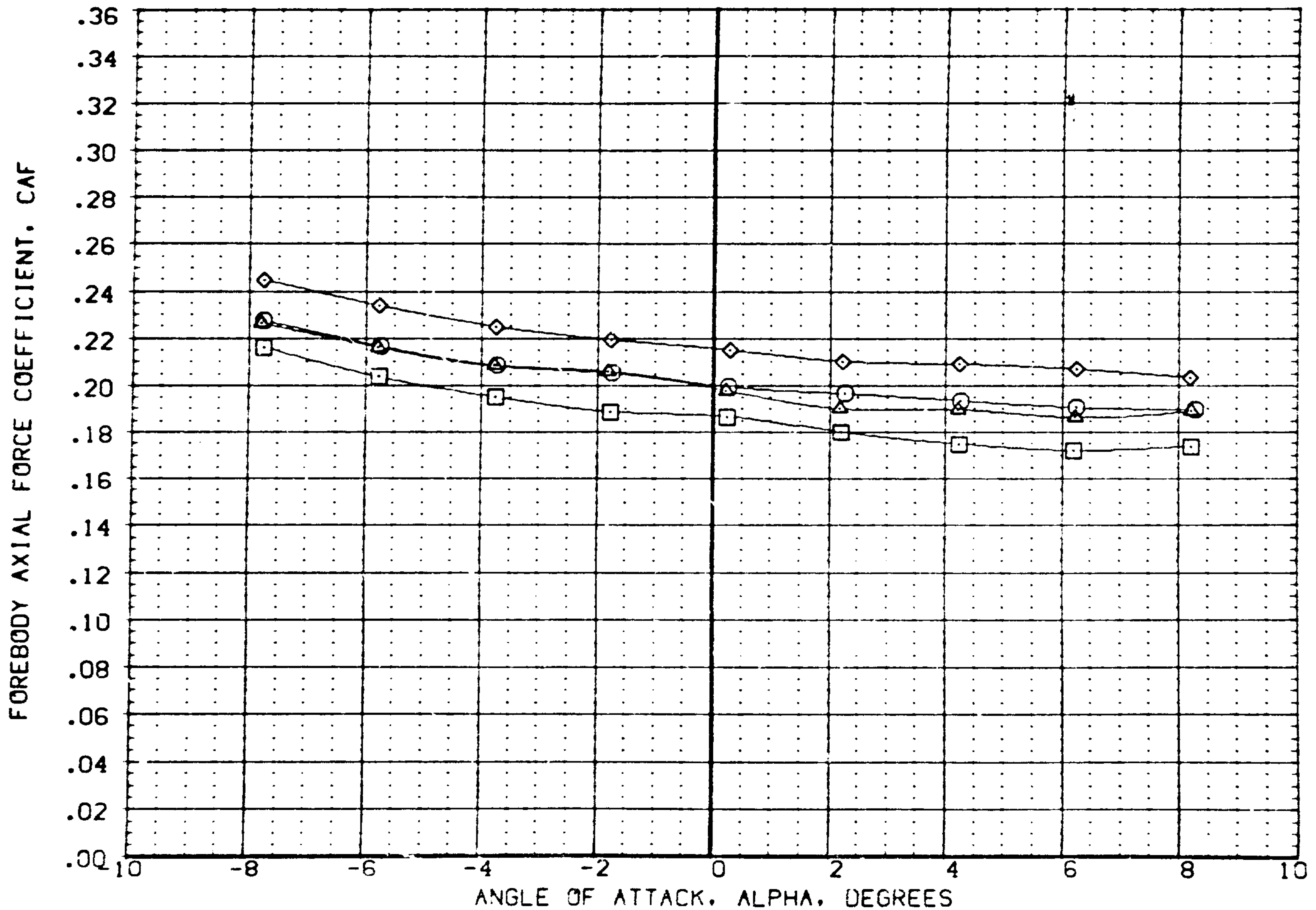


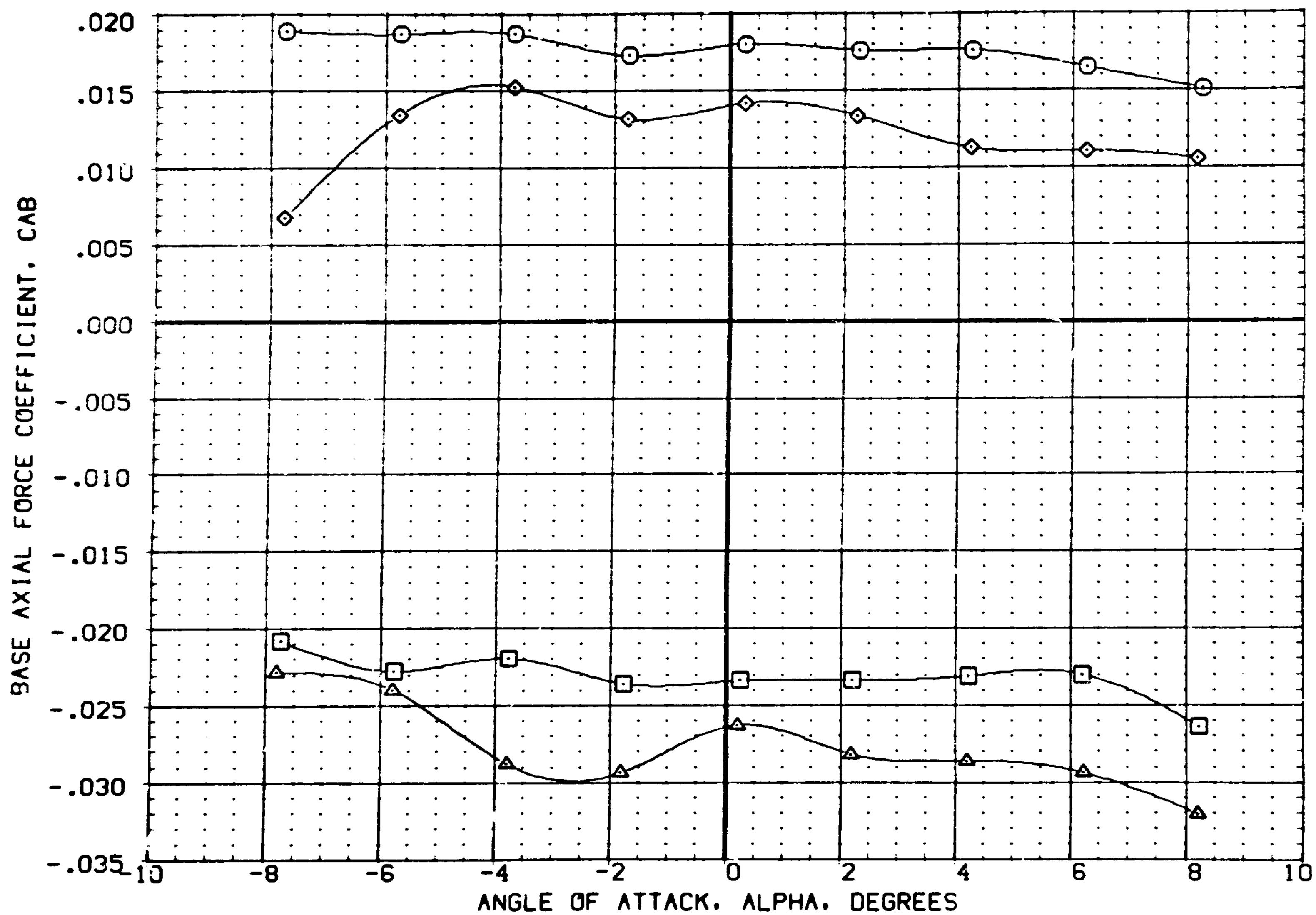
PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	⊙	AMES 87-710 (A120 O1 T1 S1)	.000			.000
(CBZ050)	⊡	AMES 87-710 (A120 O1 T1 S1)	.000	23.860	.826	1.000
(CBZ118)	◇	AMES 87-710 (A120 O1 T1 S2)	.000			.000
(CBZ121)	△	AMES 87-710 (A120 O1 T1 S2)	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

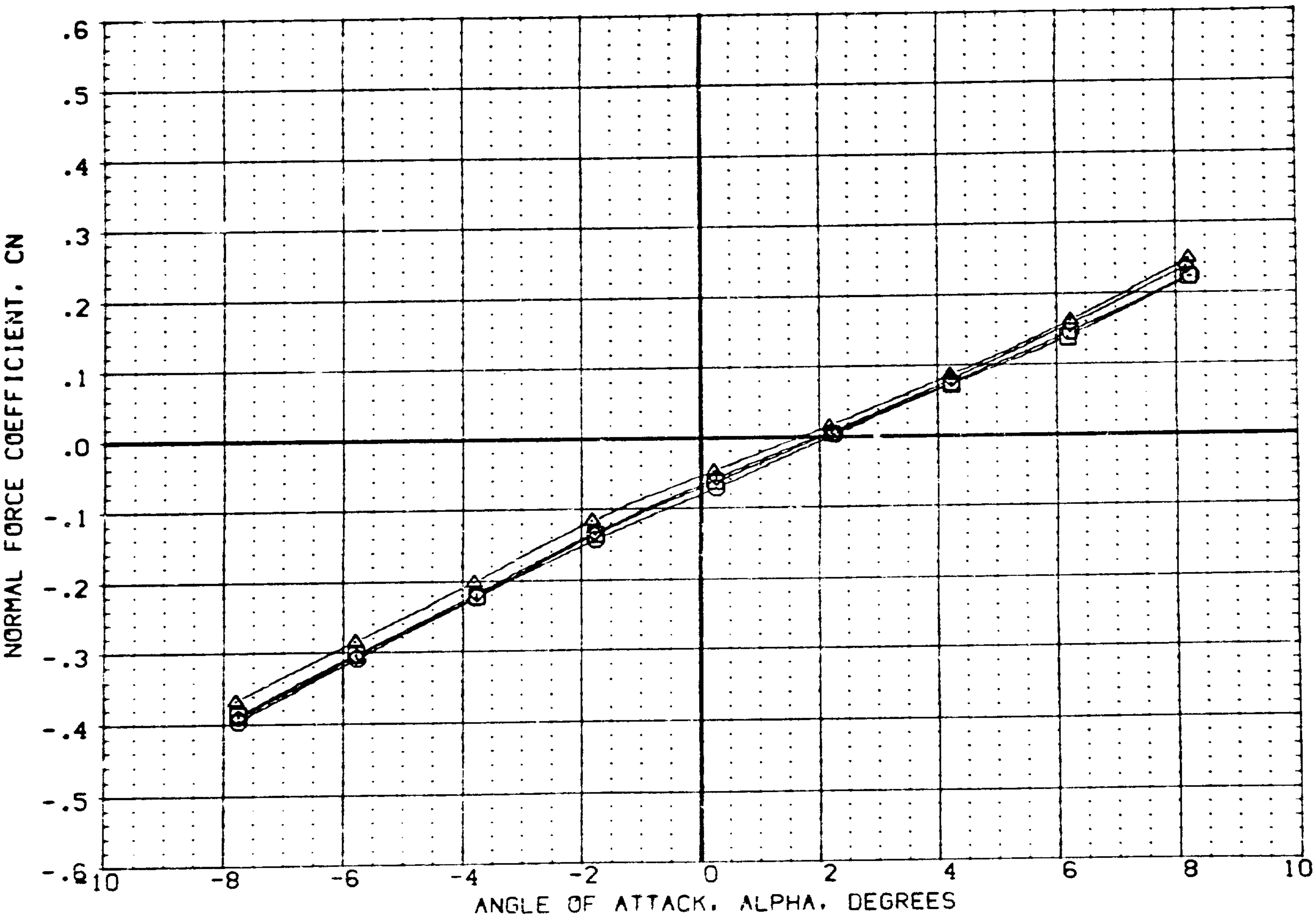


PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA120 01 T1 S1	.000			.000
(BZ050)	□	AMES 87-710 IA120 01 T1 S1	.000	23.860	.826	1.000
(BZ[illegible])	◇	AMES 87-710 IA120 01 T1 S2	.000			.000
(BZ[illegible])	△	AMES 87-710 IA120 01 T1 S2	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A) MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OFR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ0[illegible])	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BZ[illegible]8)	◇	AMES 87-710 IA12C 01 T1 S2	.000			.000
(BZ121)	△	AMES 87-710 IA12C 01 T1 S2	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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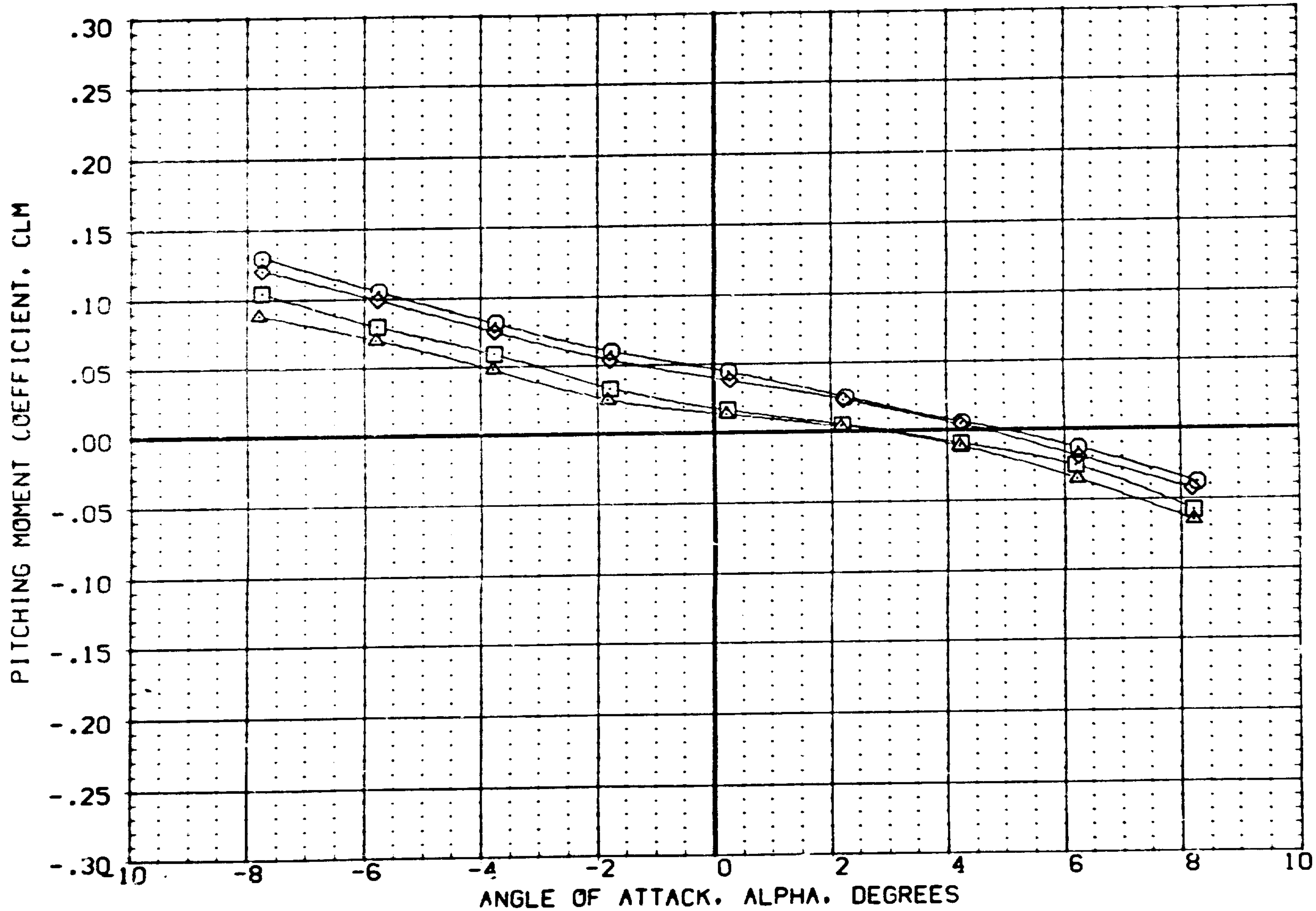
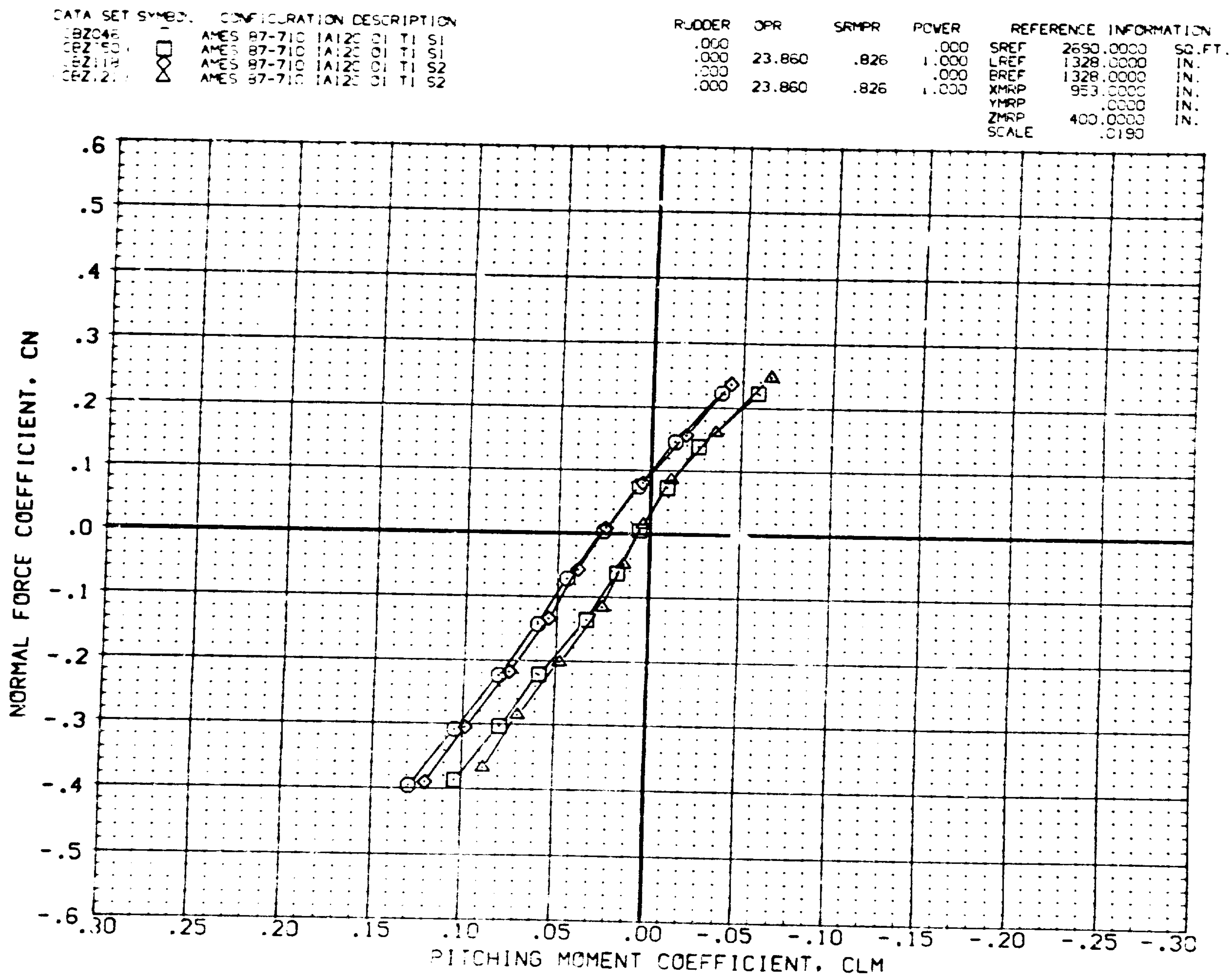


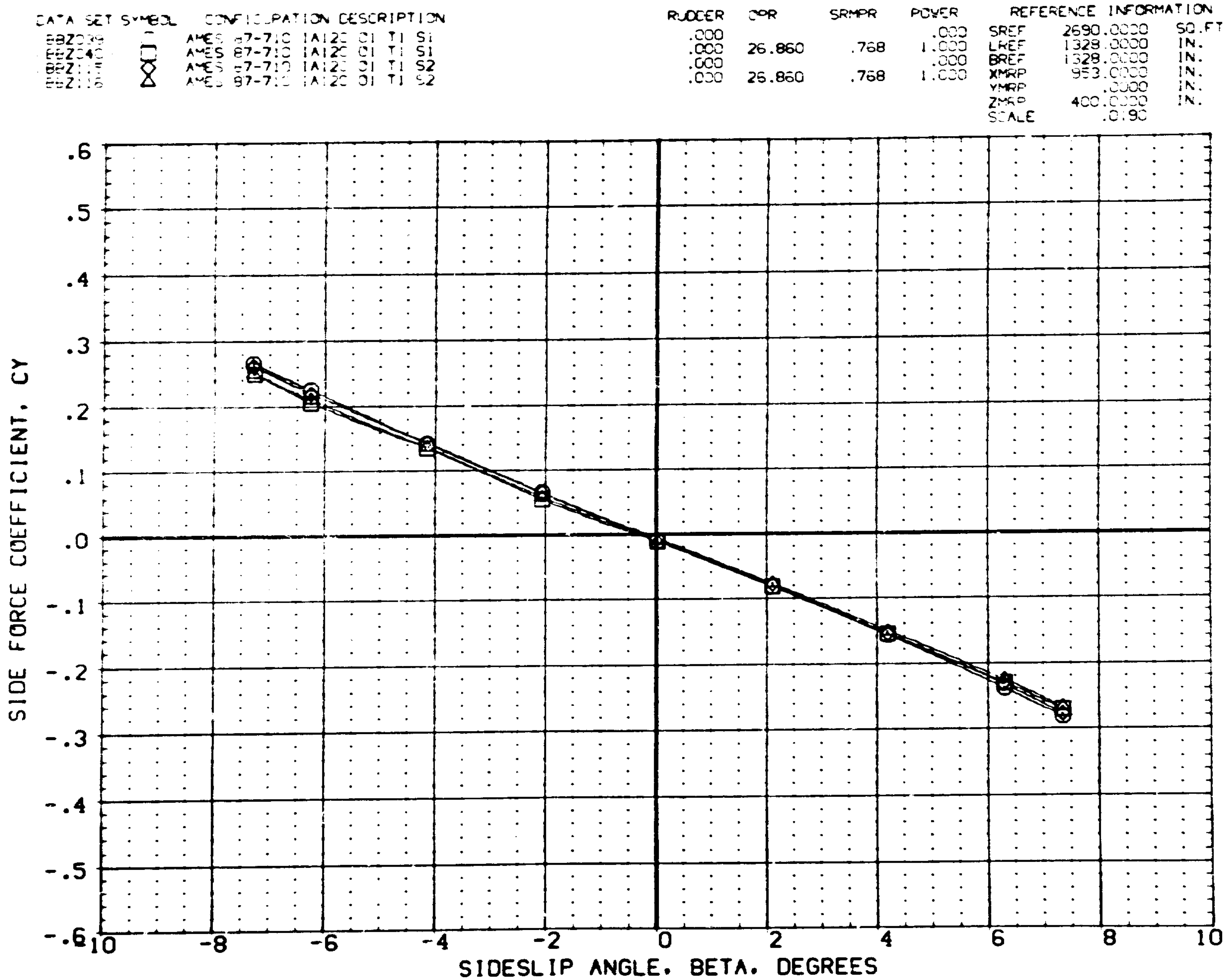
PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



PLUME AND SRB POSITION EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = [illegible]

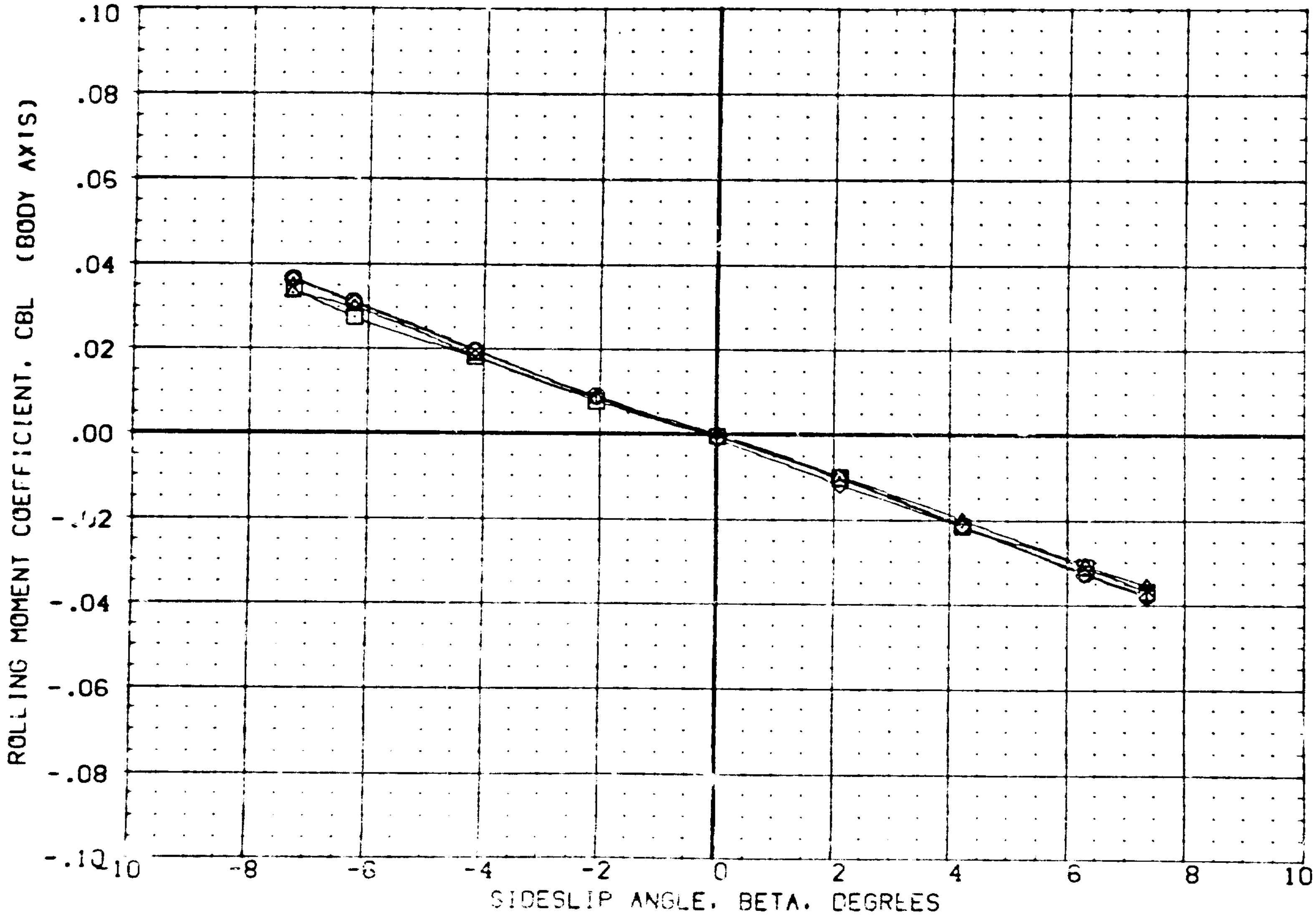


PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

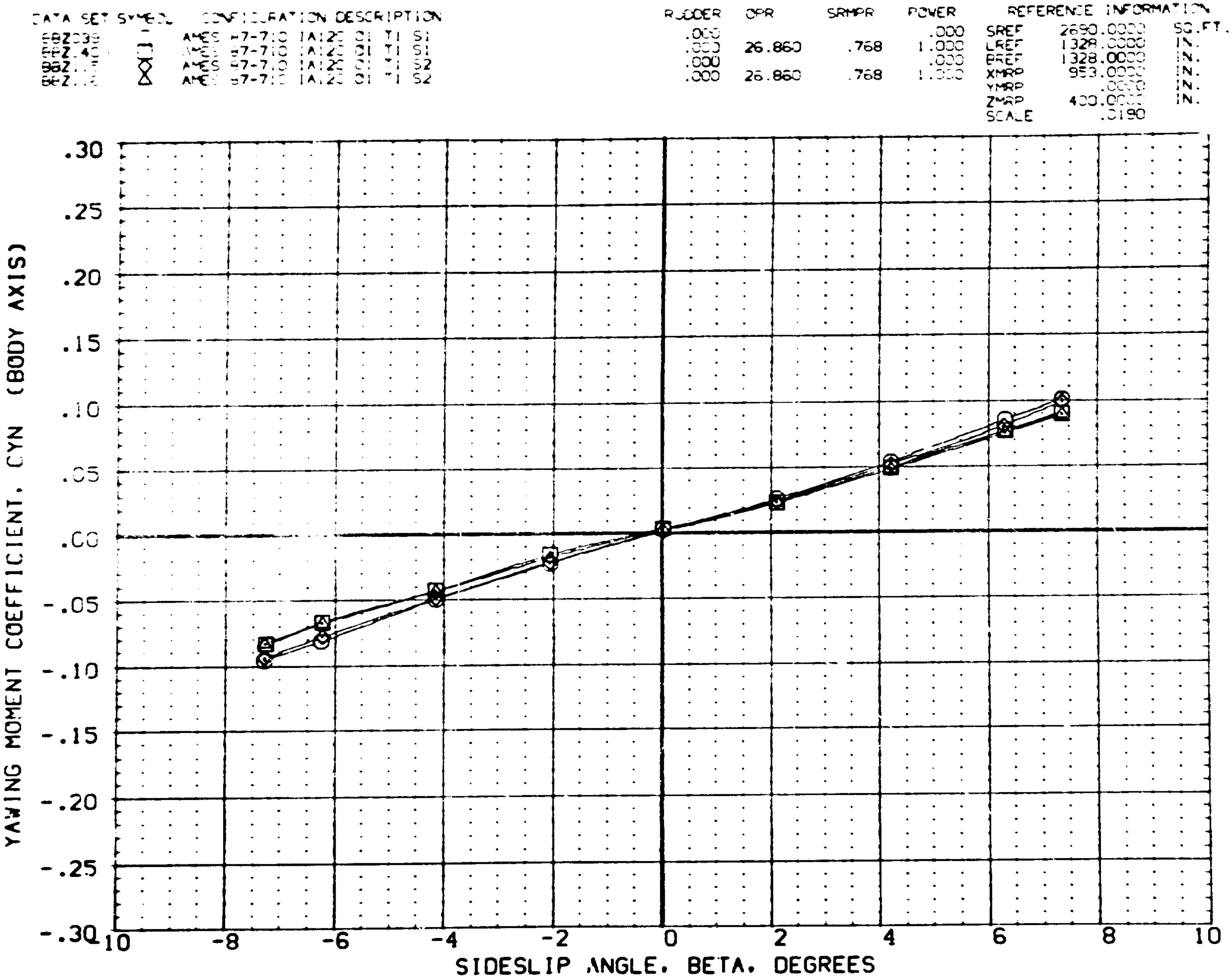
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
BBZ139	☐	AMES 87-710 IA120 C1 T1 S1	.000			.000
BBZ141	☐	AMES 87-710 IA120 C1 T1 S1	.000	26.860	.768	1.000
BBZ115	◇	AMES 87-710 IA120 C1 T1 S2	.000			.000
BBZ1[illegible]	△	AMES 87-710 IA120 C1 T1 S2	.000	26.860	.768	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.[illegible]



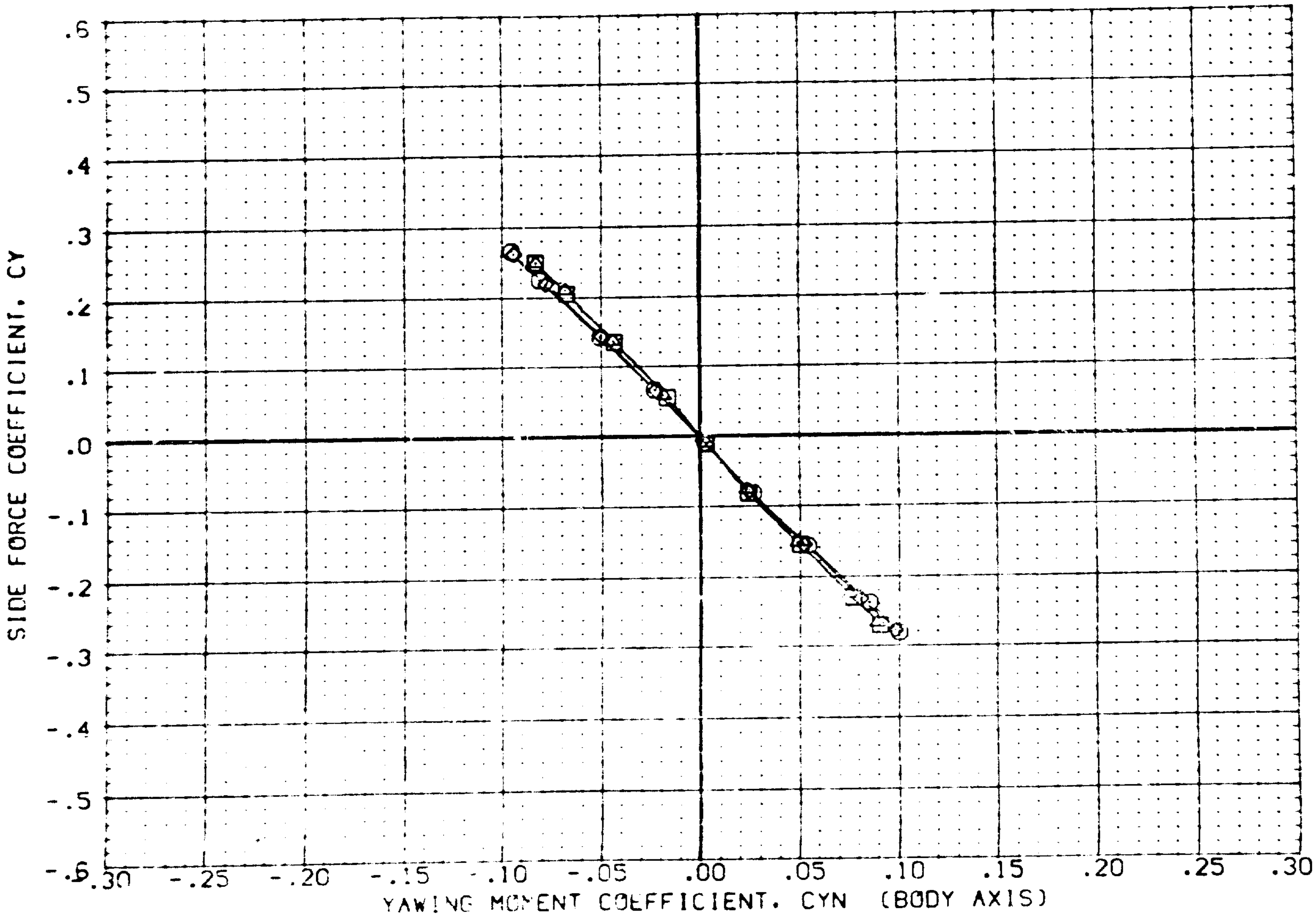
PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000			.000
.000	26.860	.768	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

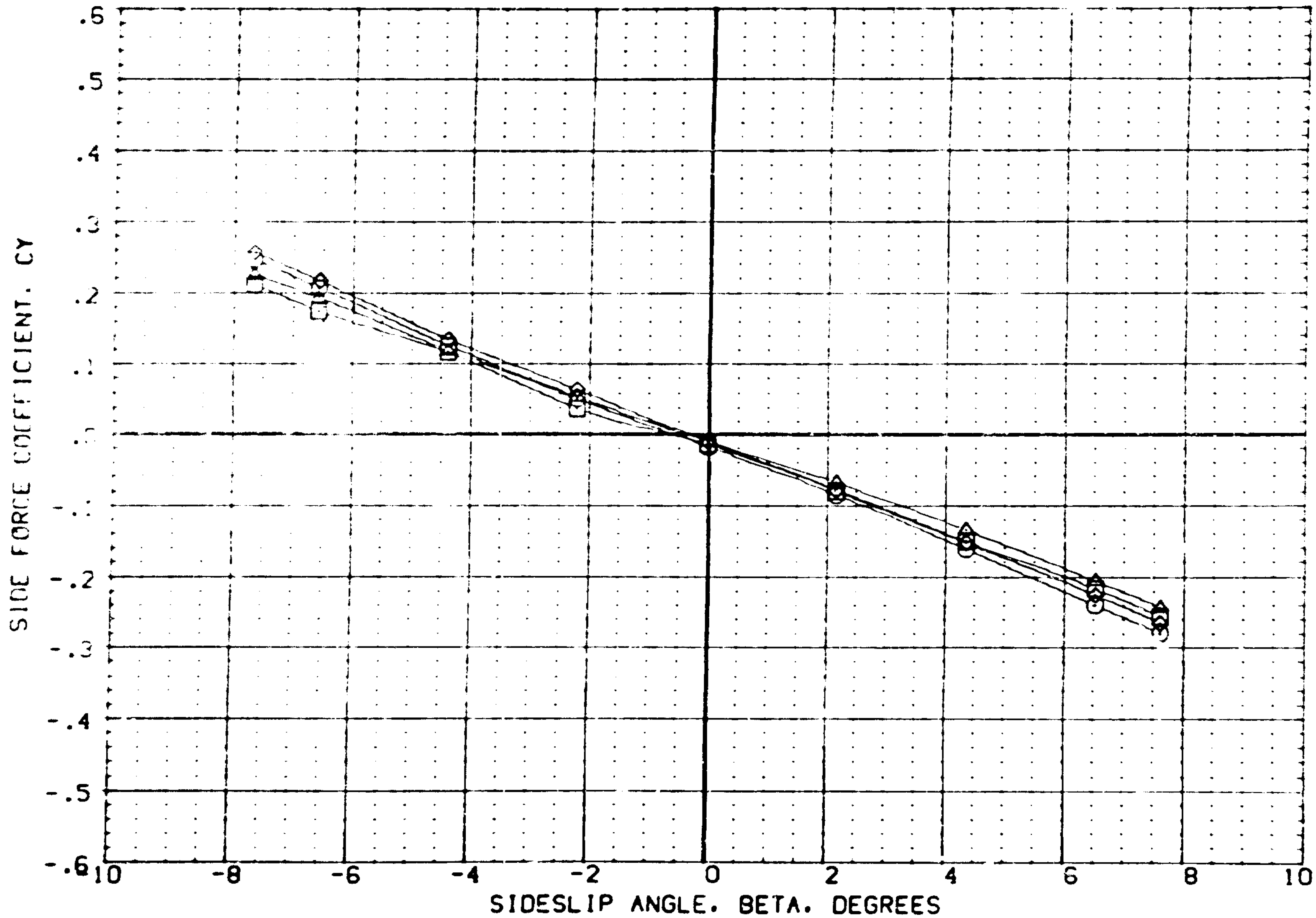


PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

MACH = 3.00

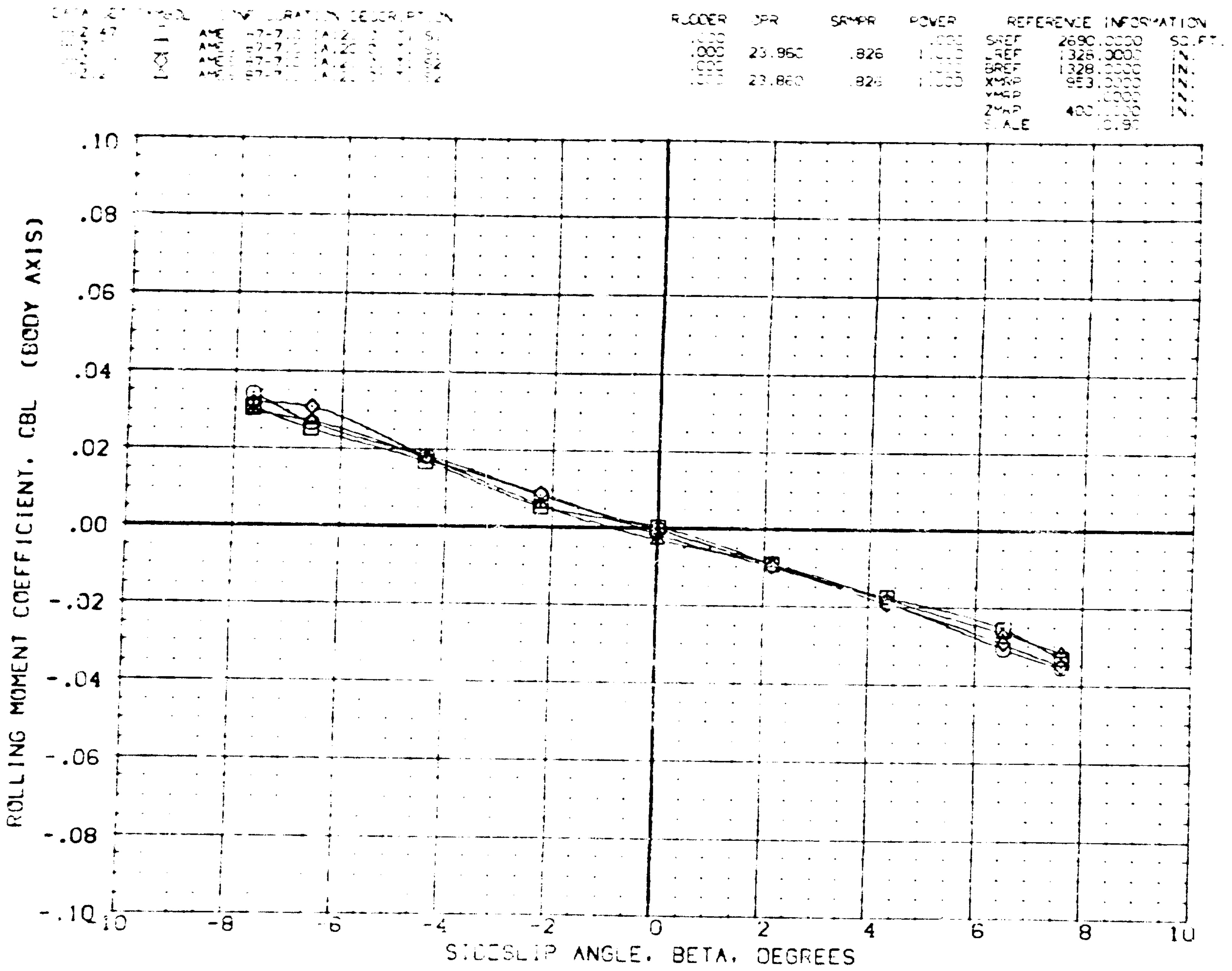
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZC47		AMES 87-7.0 IA12C OI TI S1	.000			.000
6BZ[illegible]		AMES 87-7.0 IA12C OI TI S1	.000	23.860	.826	1.000
6BZ[illegible]		AMES 87-7.0 IA12C OI TI S2	.000			.000
6BZ[illegible]		AMES 87-7.0 IA12C OI TI S2	.000	23.860	.826	1.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1326.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

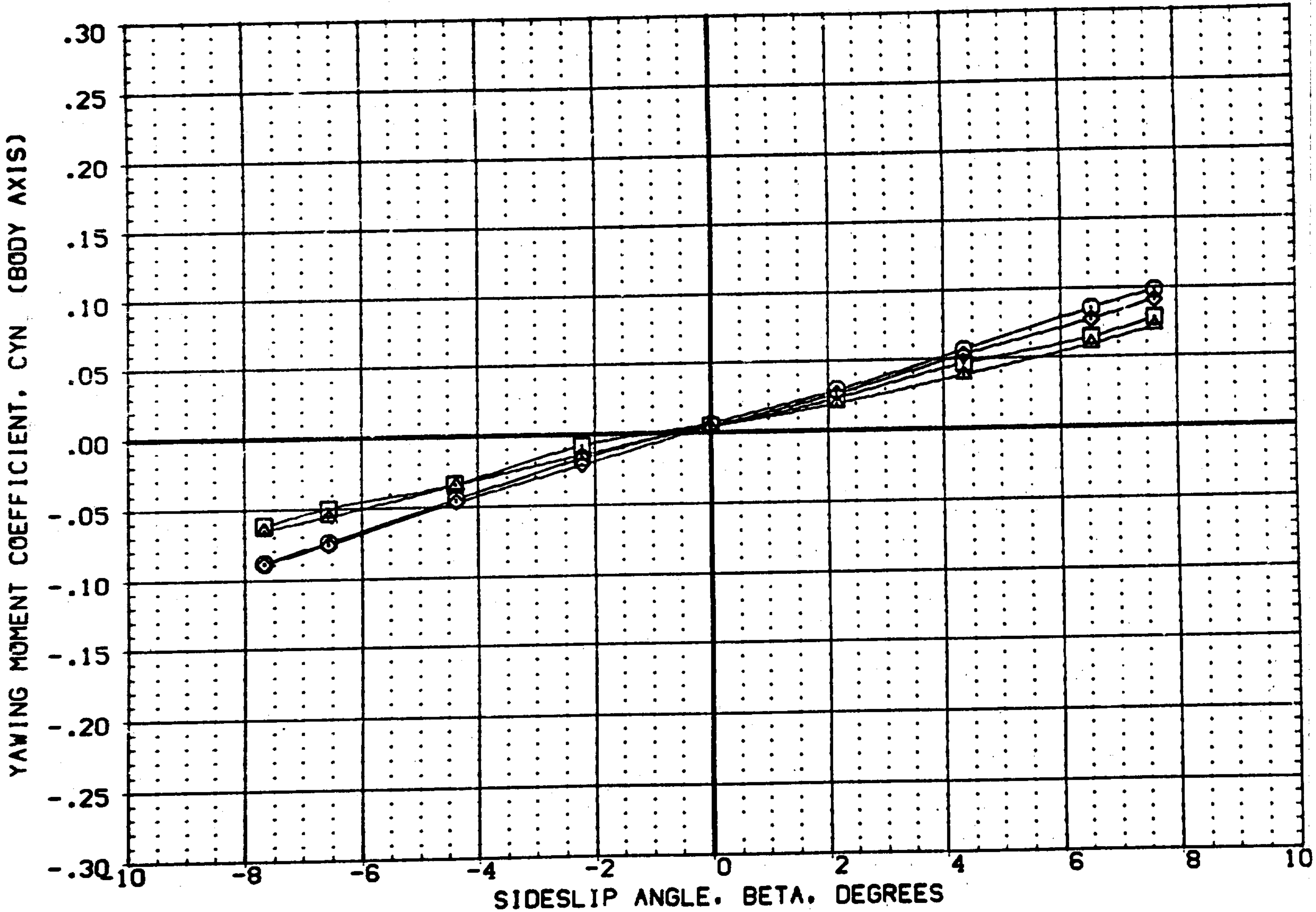


PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ047)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ051)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BBZ119)	◇	AMES 87-710 IA12C 01 T1 S2	.000			.000
(BBZ120)	△	AMES 87-710 IA12C 01 T1 S2	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



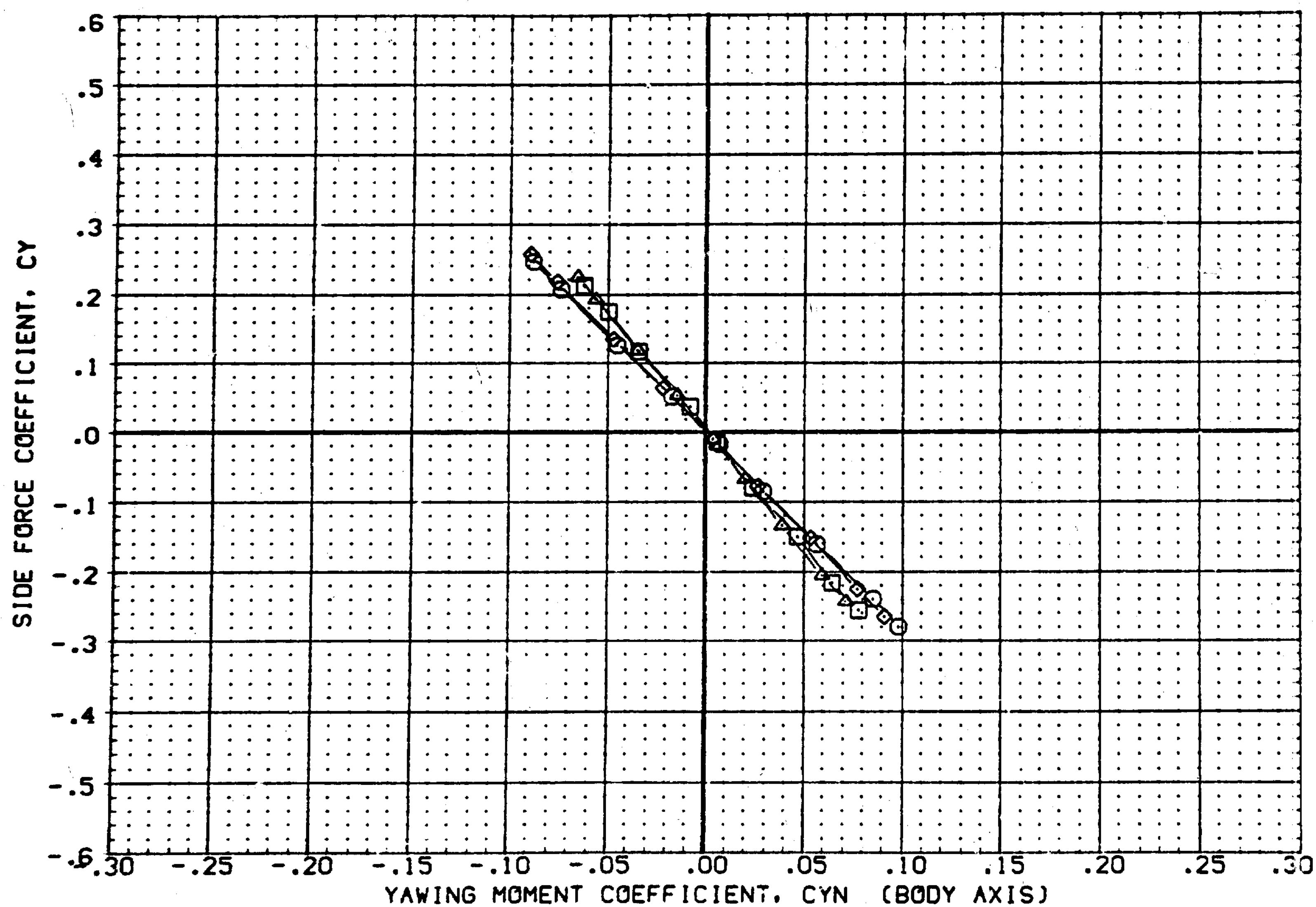
PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ047)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ051)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BBZ119)	◇	AMES 87-710 IA12C 01 T1 S2	.000			.000
(BBZ120)	△	AMES 87-710 IA12C 01 T1 S2	.000	23.860	.826	1.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



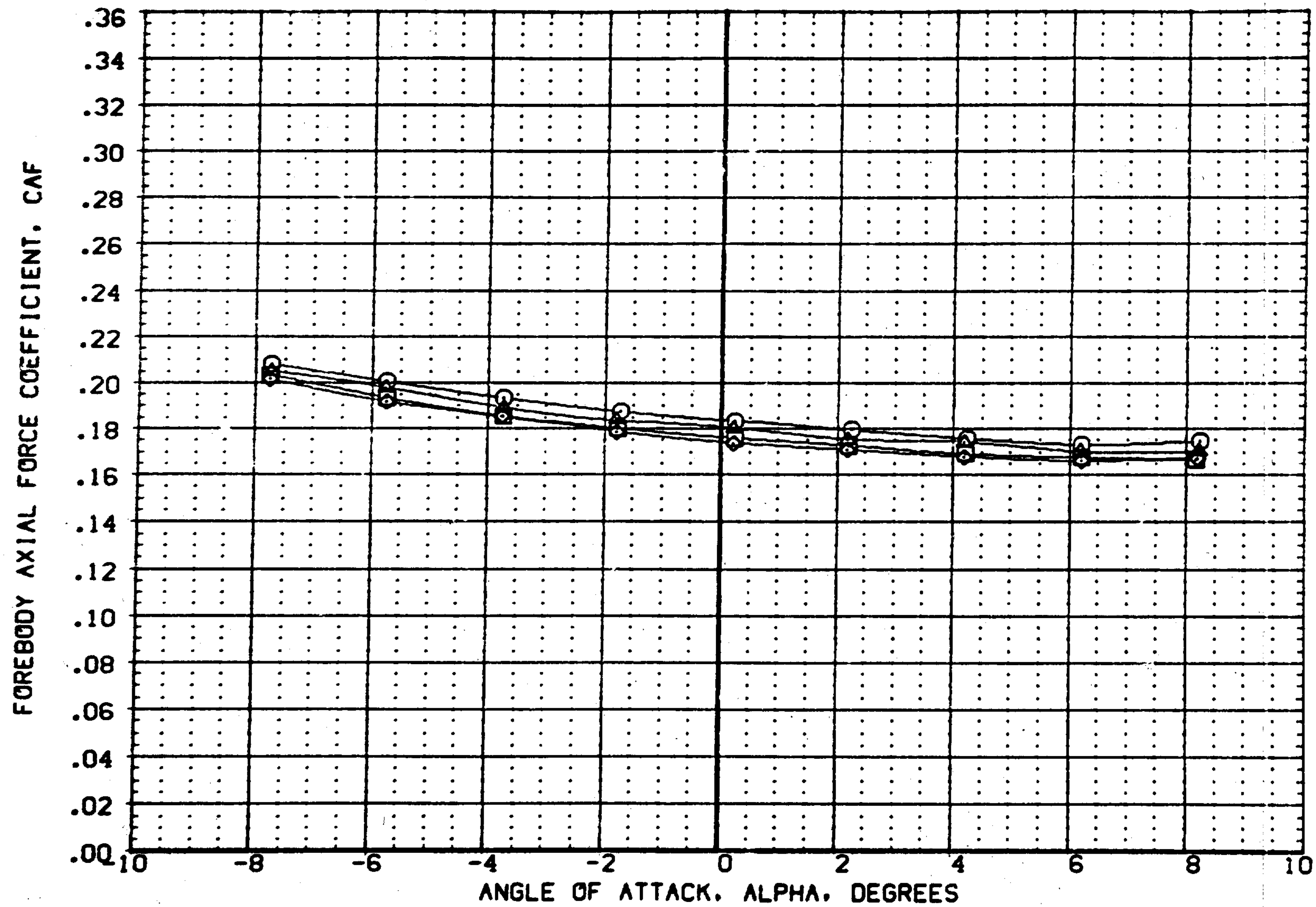
PLUME AND SRB POSITION EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ122)	○	AMES 87-710 IA12C 01 T1	.000			.000
(CBZ125)	□	AMES 87-710 IA12C 01 T1	.000	23.860		3.000
(CBZ126)	◇	AMES 87-710 IA12C 03 T1	.000	23.860		3.000
(CBZ127)	△	AMES 87-710 IA12C 04 T1	.000	23.860		3.000

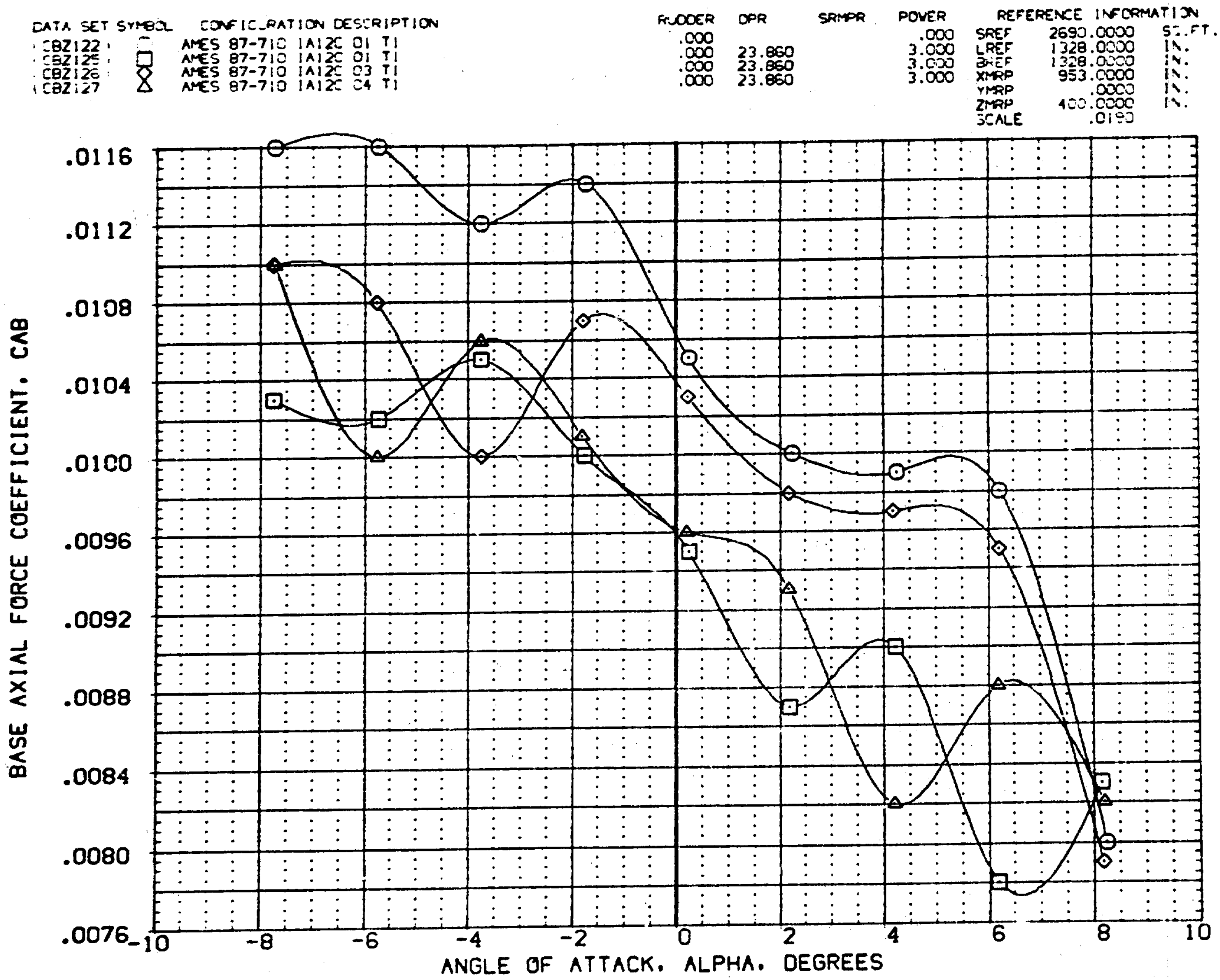
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



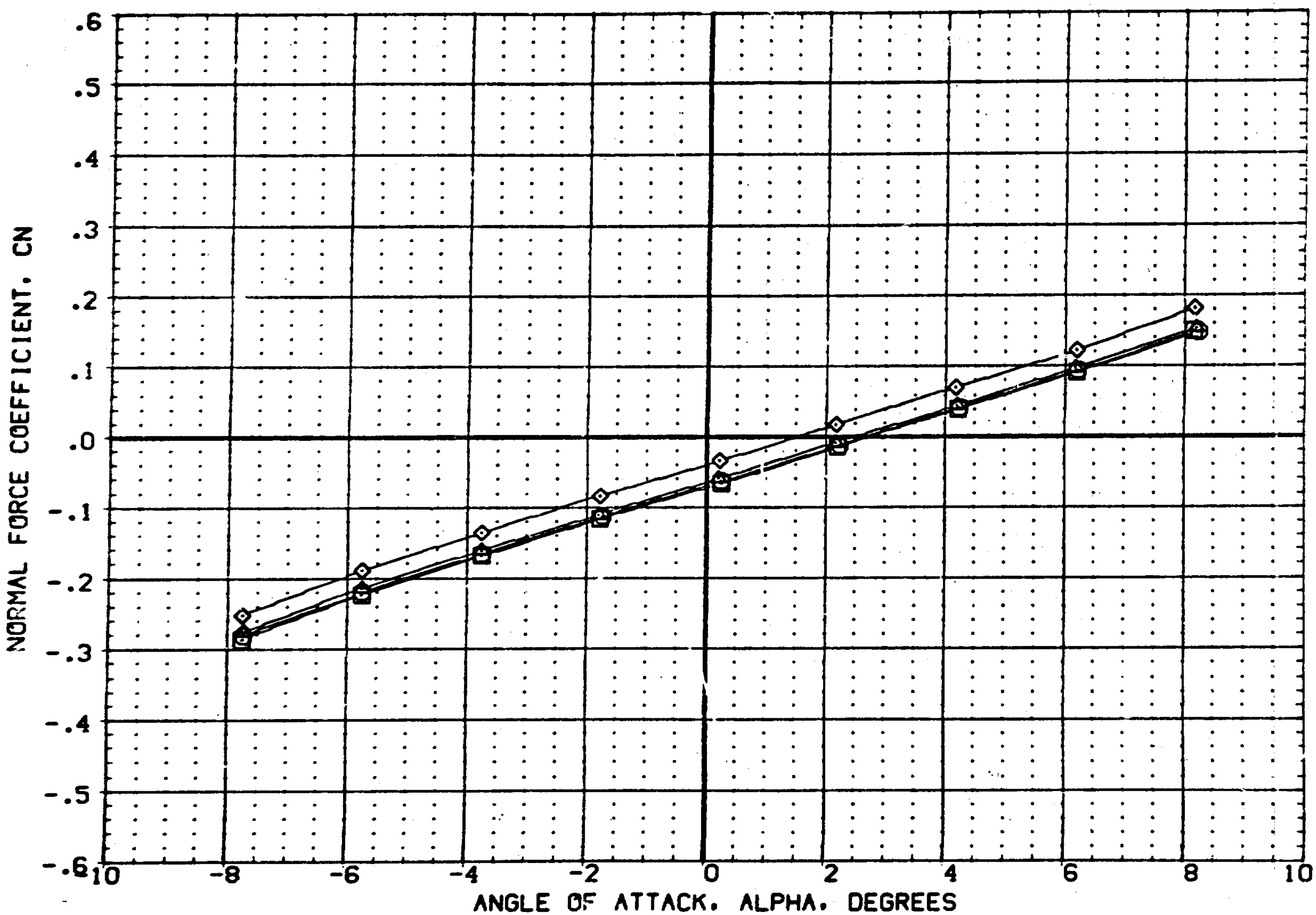
SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ122)	○	AMES 87-710 IA12C 01 T1	.000			.000
(CBZ125)	□	AMES 87-710 IA12C 01 T1	.000	23.860		3.000
(CBZ126)	◇	AMES 87-710 IA12C 03 T1	.000	23.860		3.000
(CBZ127)	△	AMES 87-710 IA12C 04 T1	.000	23.860		3.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ122)	○	AMES 87-710 (A12C 01 T)	.000			.000
(CBZ125)	□	AMES 87-710 (A12C 01 T)	.000	23.860		3.000
(CBZ126)	◇	AMES 87-710 (A12C 03 T)	.000	23.850		3.000
(CBZ127)	△	AMES 87-710 (A12C 04 T)	.000	23.860		3.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
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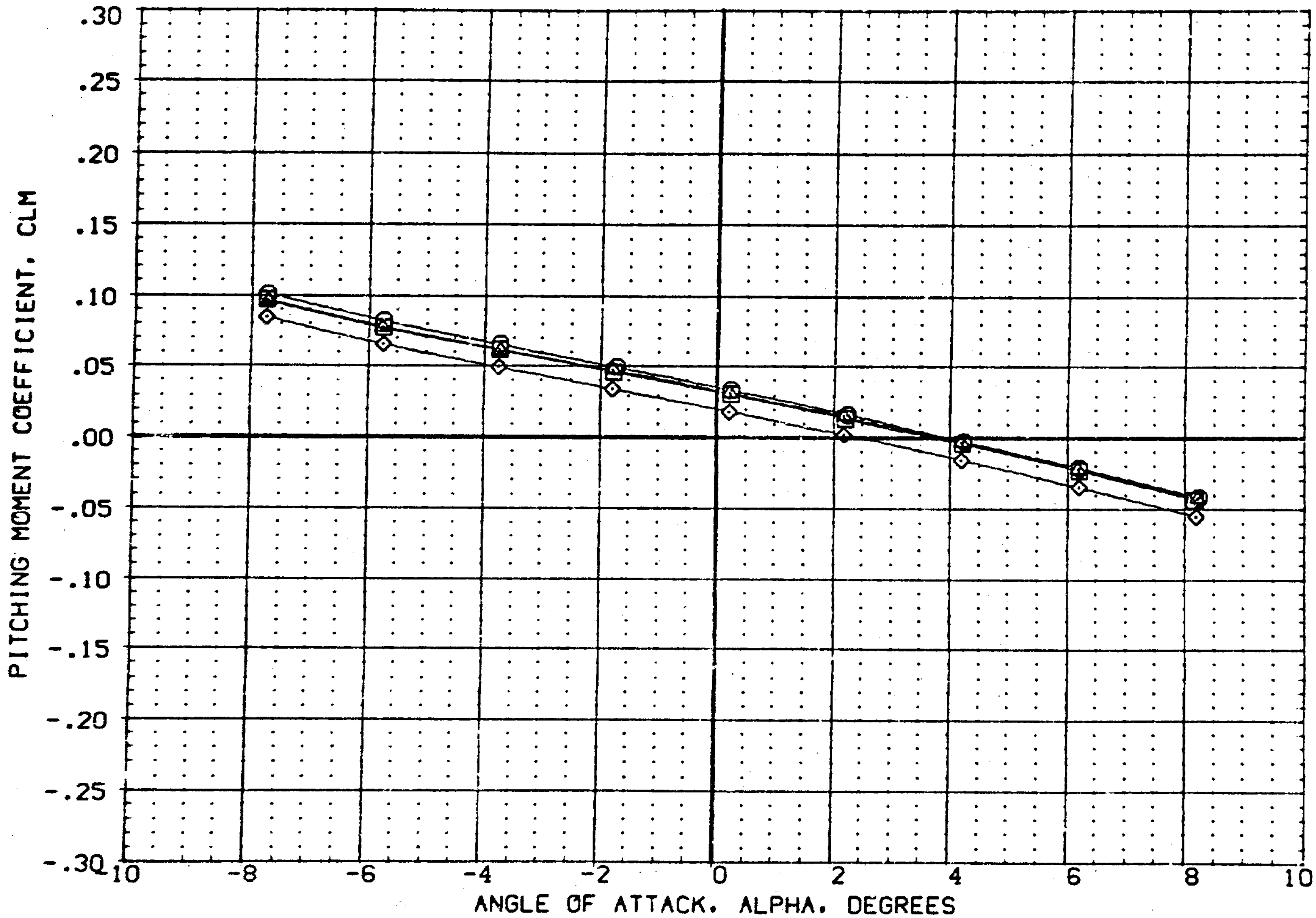


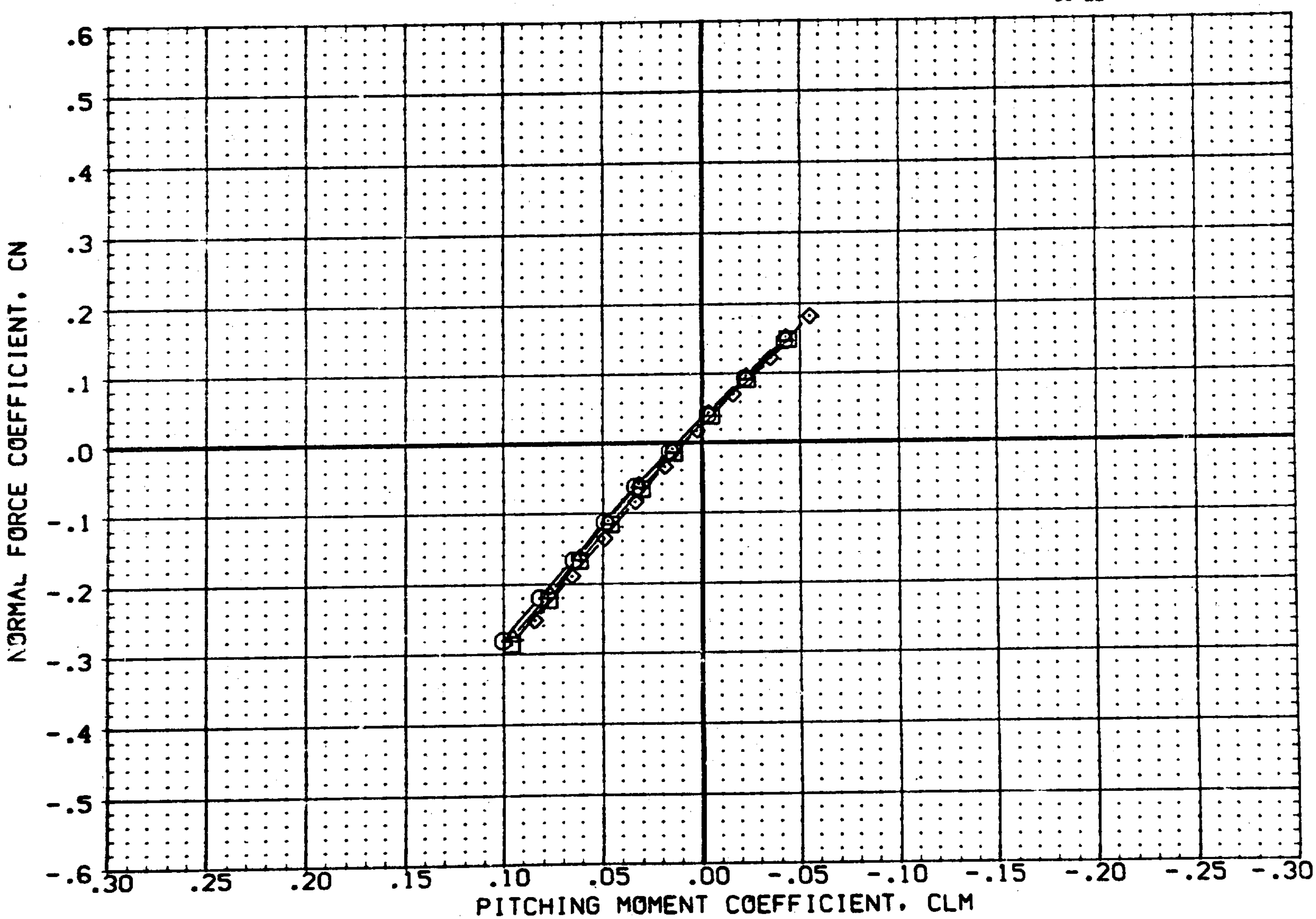
SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ122)	○	AMES 87-710 IA12C 01 T1	.000			.000
(CBZ125)	□	AMES 87-710 IA12C 01 T1	.000	23.860		3.000
(CBZ126)	◇	AMES 87-710 IA12C 03 T1	.000	23.860		3.000
(CBZ127)	△	AMES 87-710 IA12C 04 T1	.000	23.860		3.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

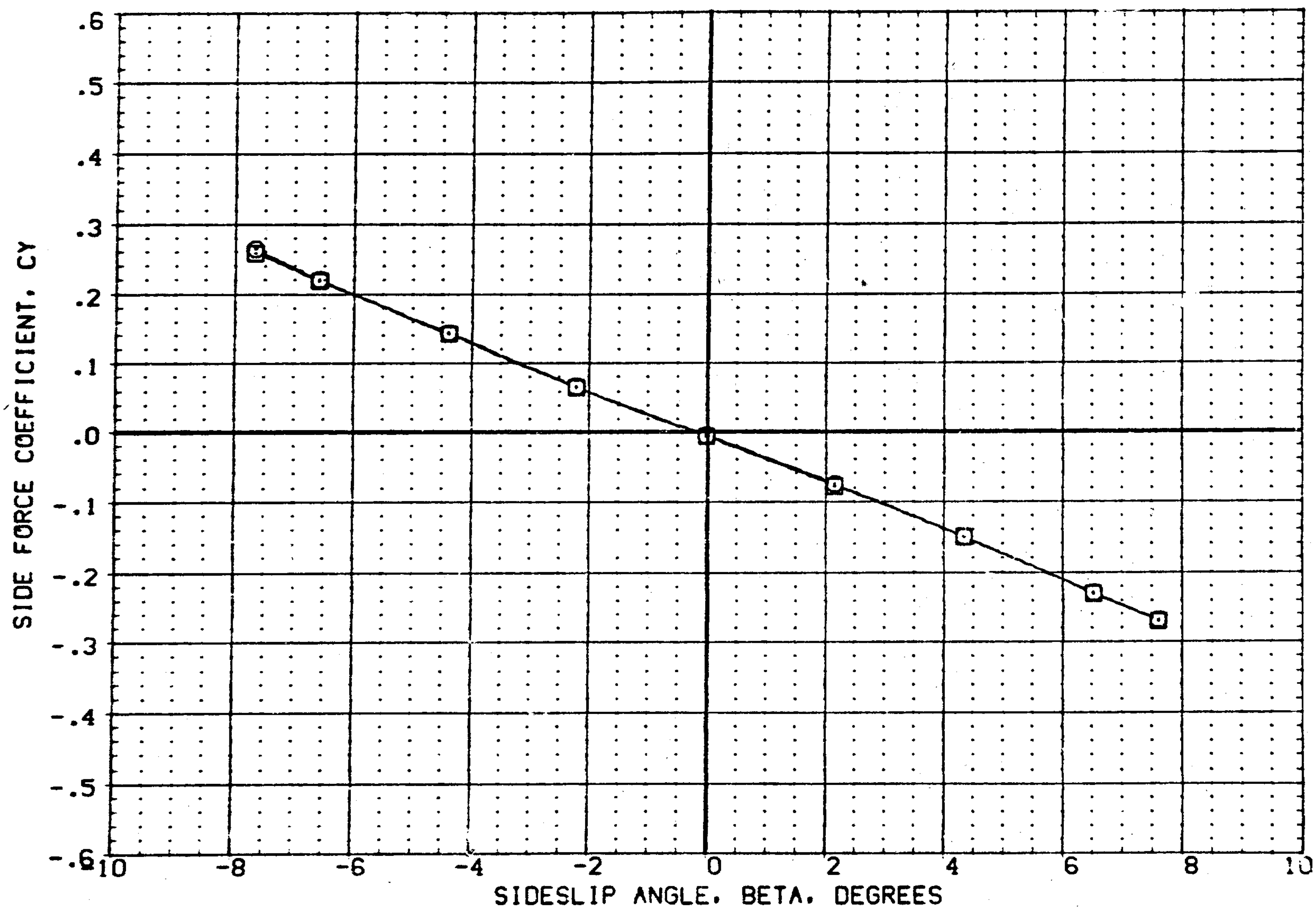


SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

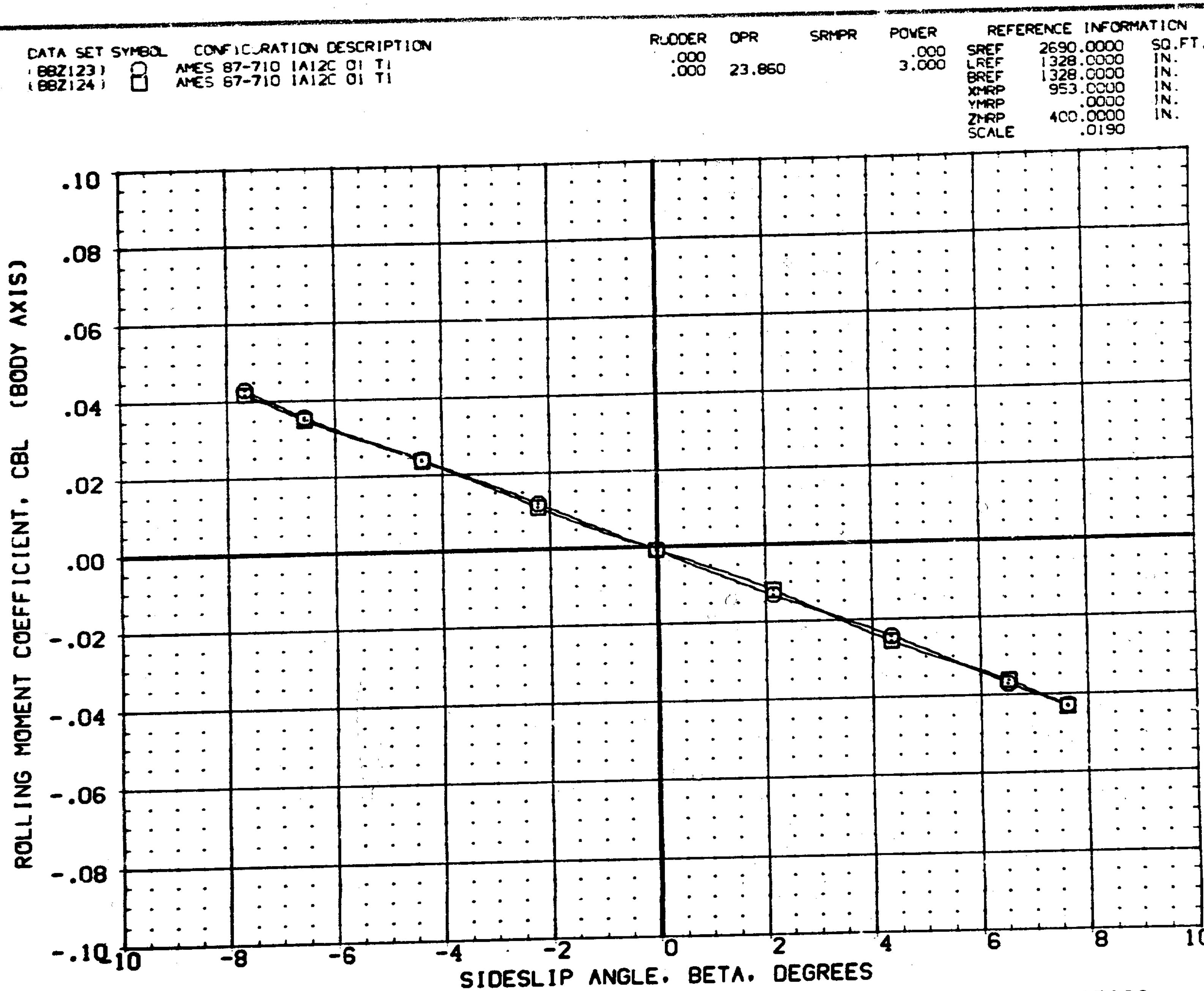
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDEP	OPR	SRMPR	POWER
(BBZ123)	▢	AMES 87-710 (A12C 01 T1	.000			.000
(BBZ124)	▢	AMES 87-710 (A12C 01 T1	.000	23.860		3.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



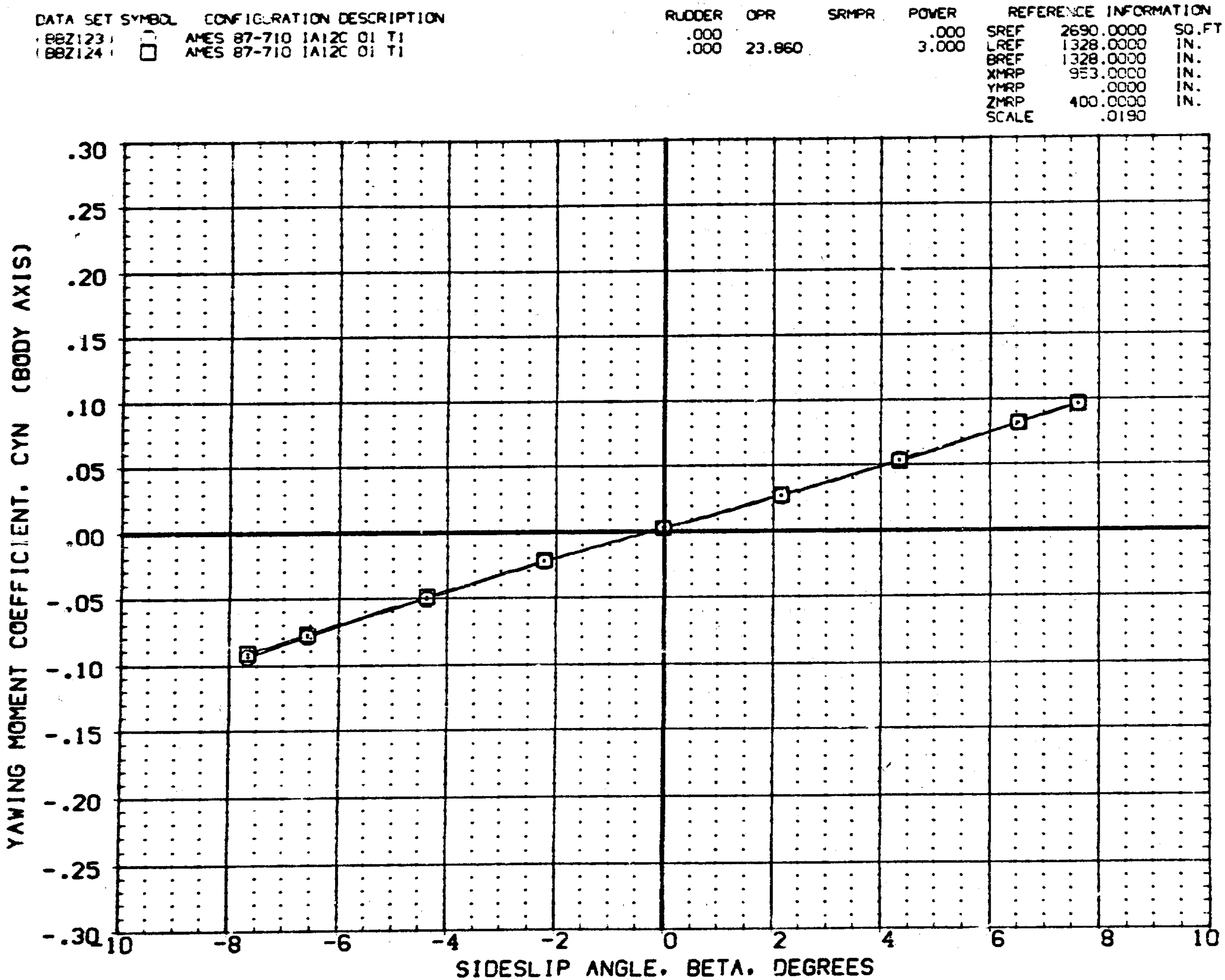
SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50



SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50



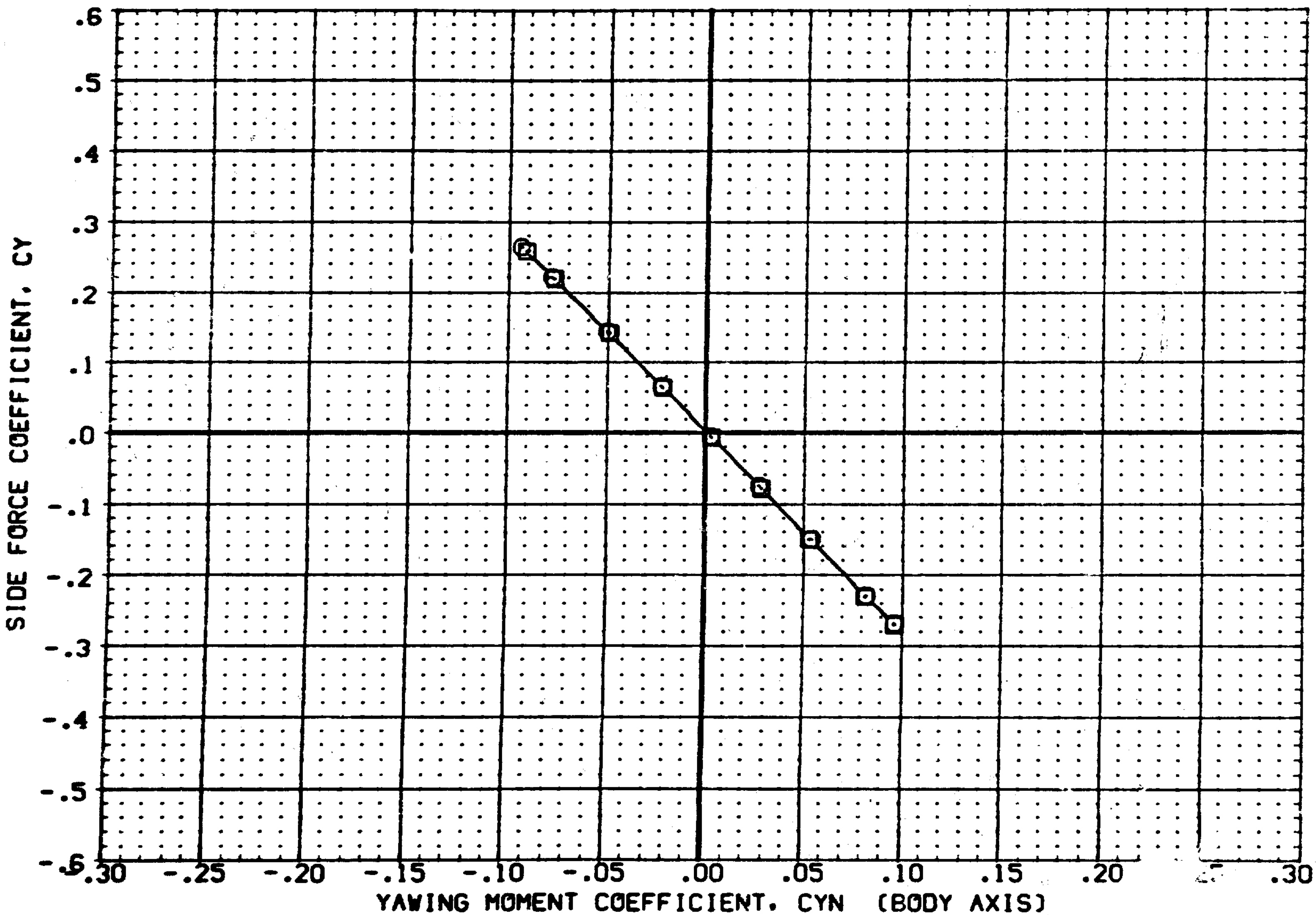
SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(6BZ123)	○	AMES 87-710 IA12C 01 T1	.000			.000
(6BZ124)	□	AMES 87-710 IA12C 01 T1	.000	23.860		3.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



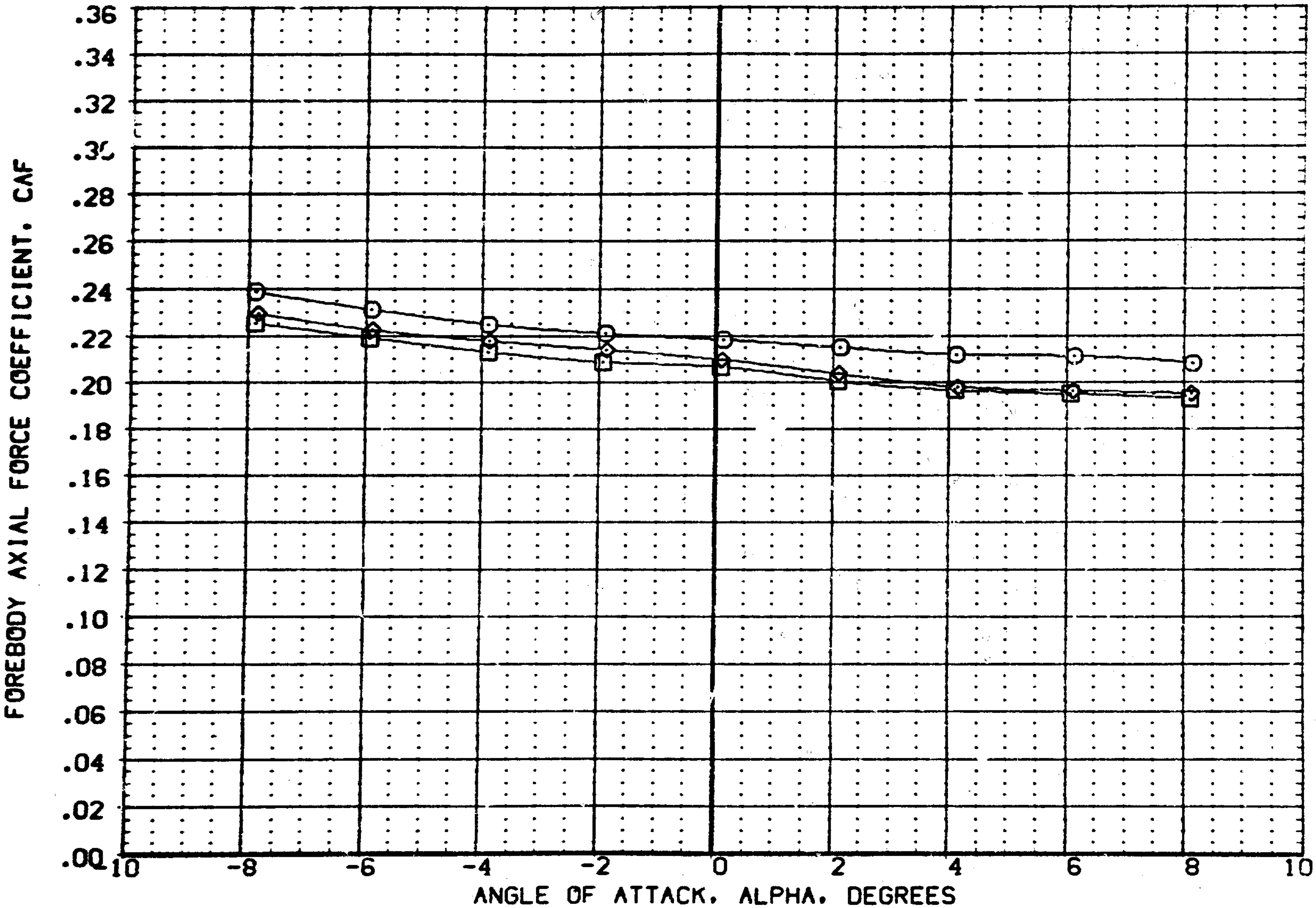
SECOND STAGE ORBITER ENGINE OUT EFFECTS ON LATERAL CHARA TERIST CS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ041)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(CBZ128)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



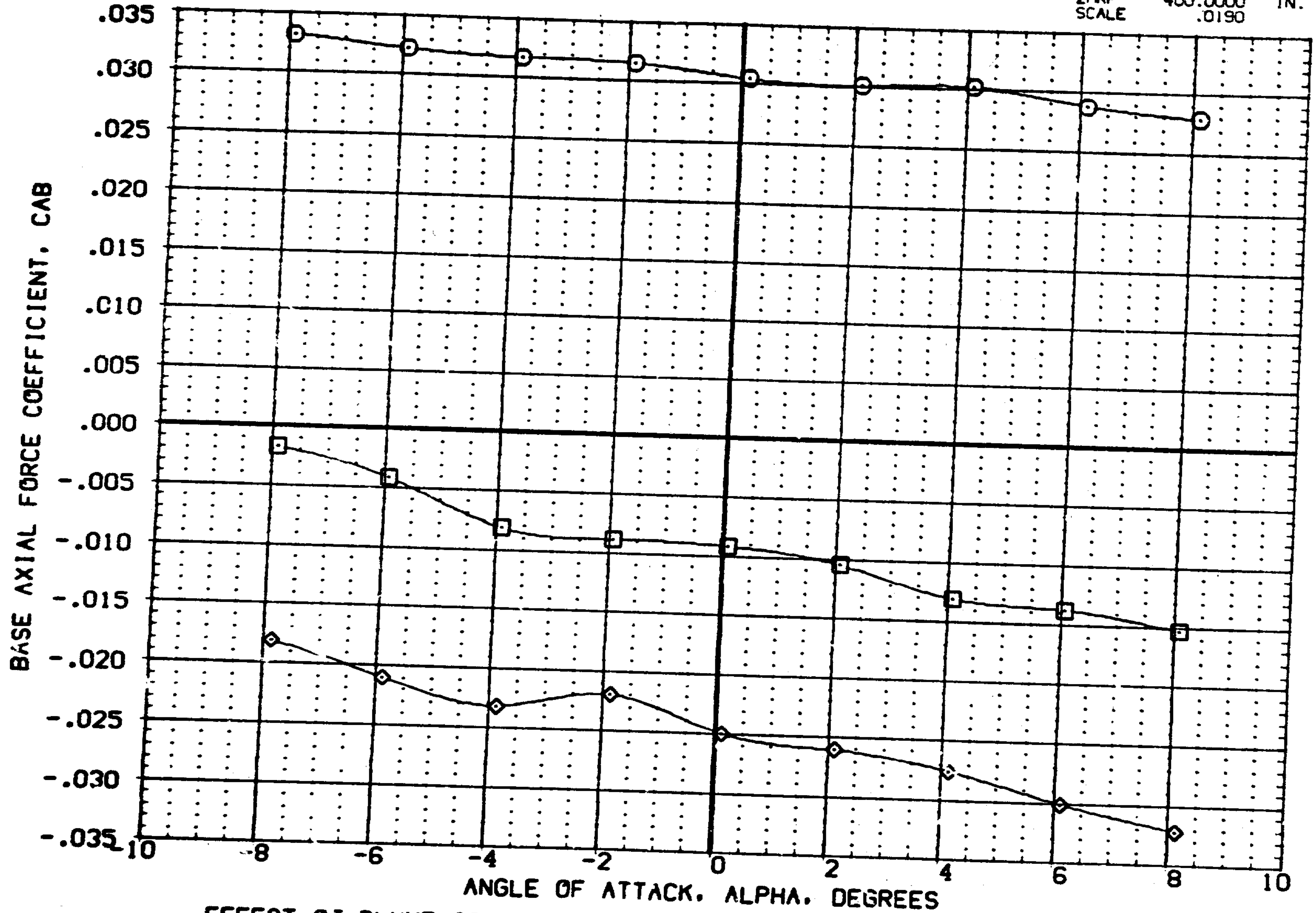
EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C OI TI SI	.000			.000
(CBZ041)	□	AMES 87-710 IA12C OI TI SI	.000	26.860	.768	1.000
(CBZ128)	◇	AMES 87-710 IA.2C OI TI SI M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

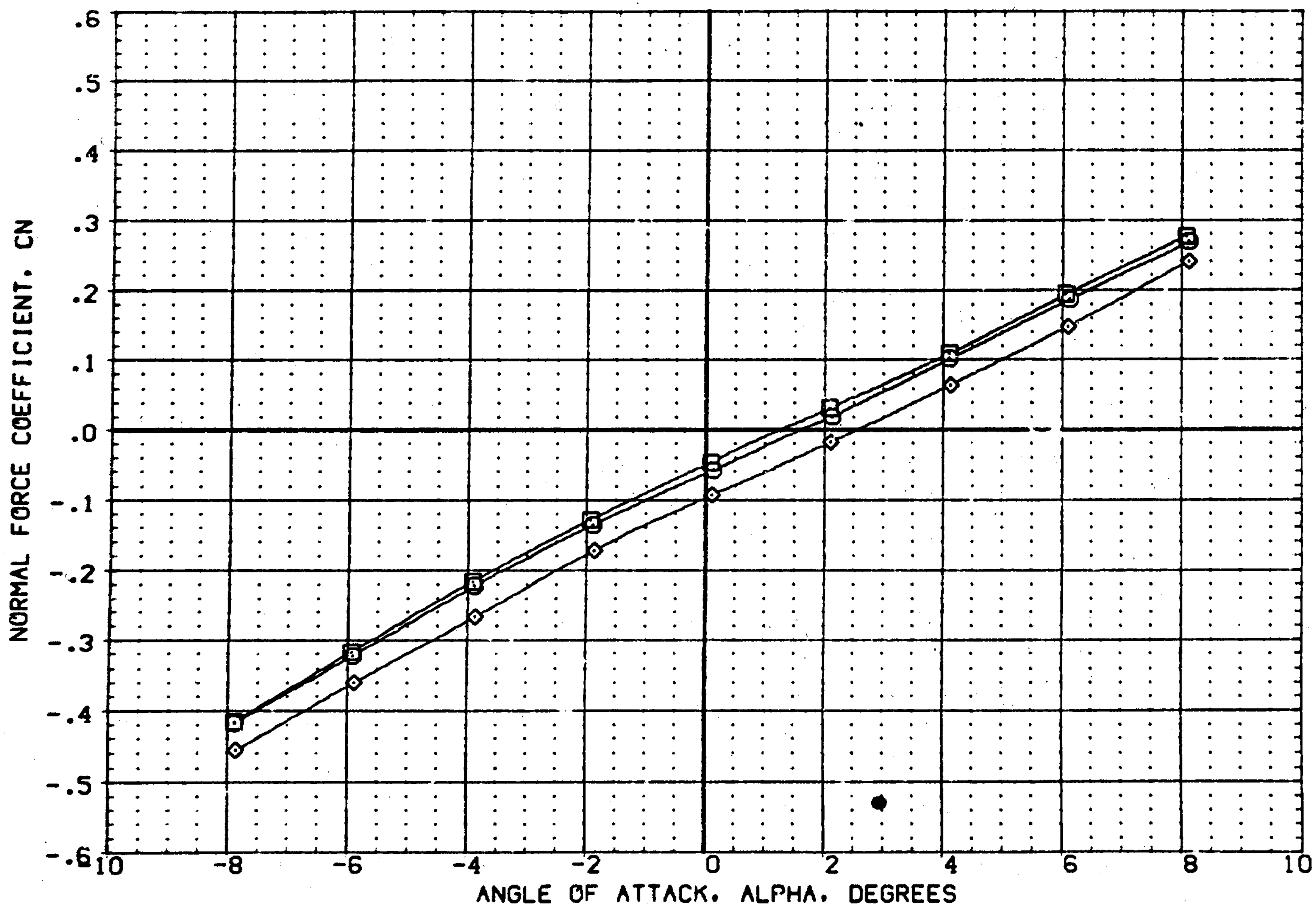


EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C OI TI SI	.000			.000
(CBZ041)	□	AMES 87-710 IA12C OI TI SI	.000	26.860	.768	1.000
(CBZ128)	◇	AMES 87-710 IA12C OI TI SI M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

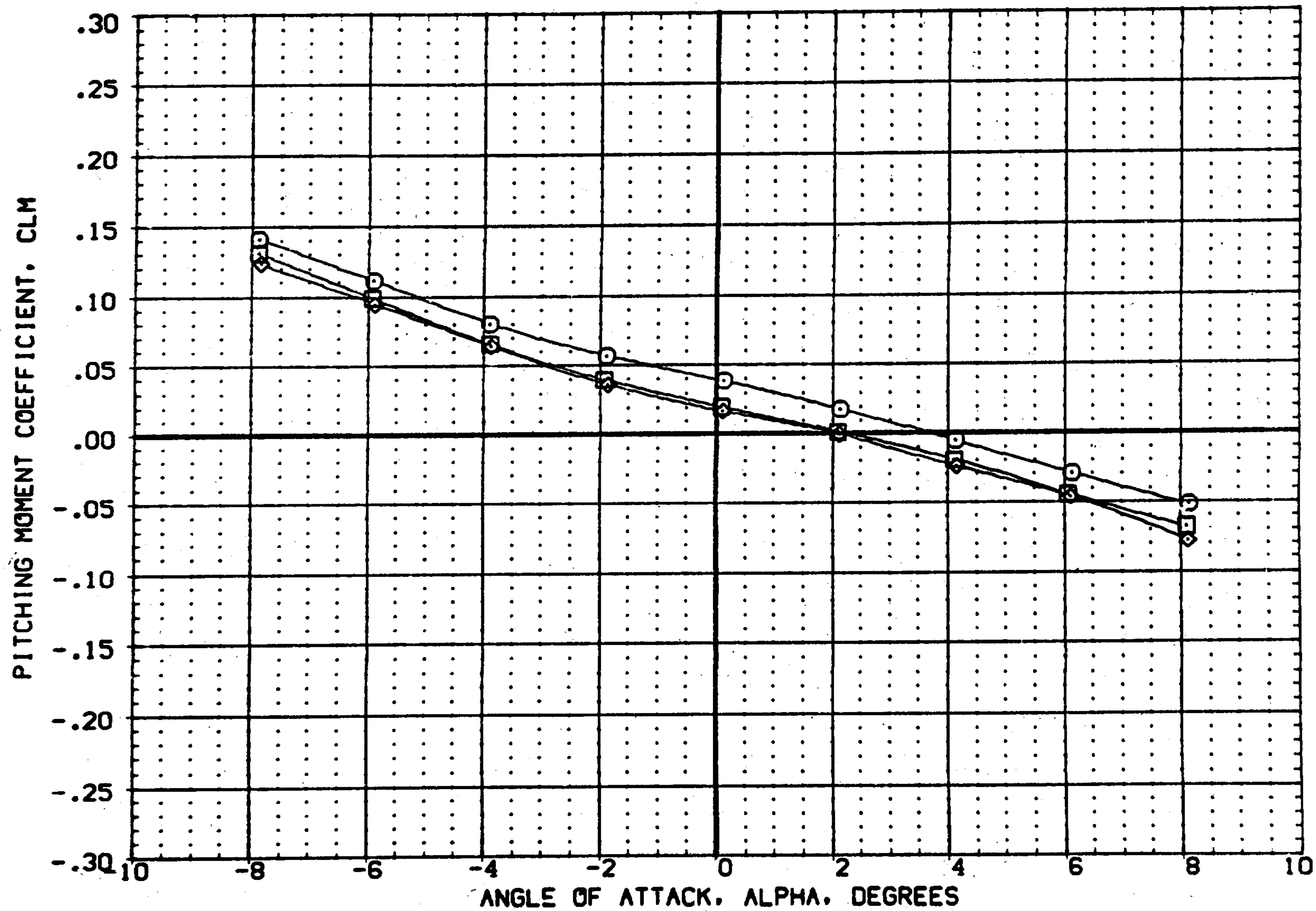


EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

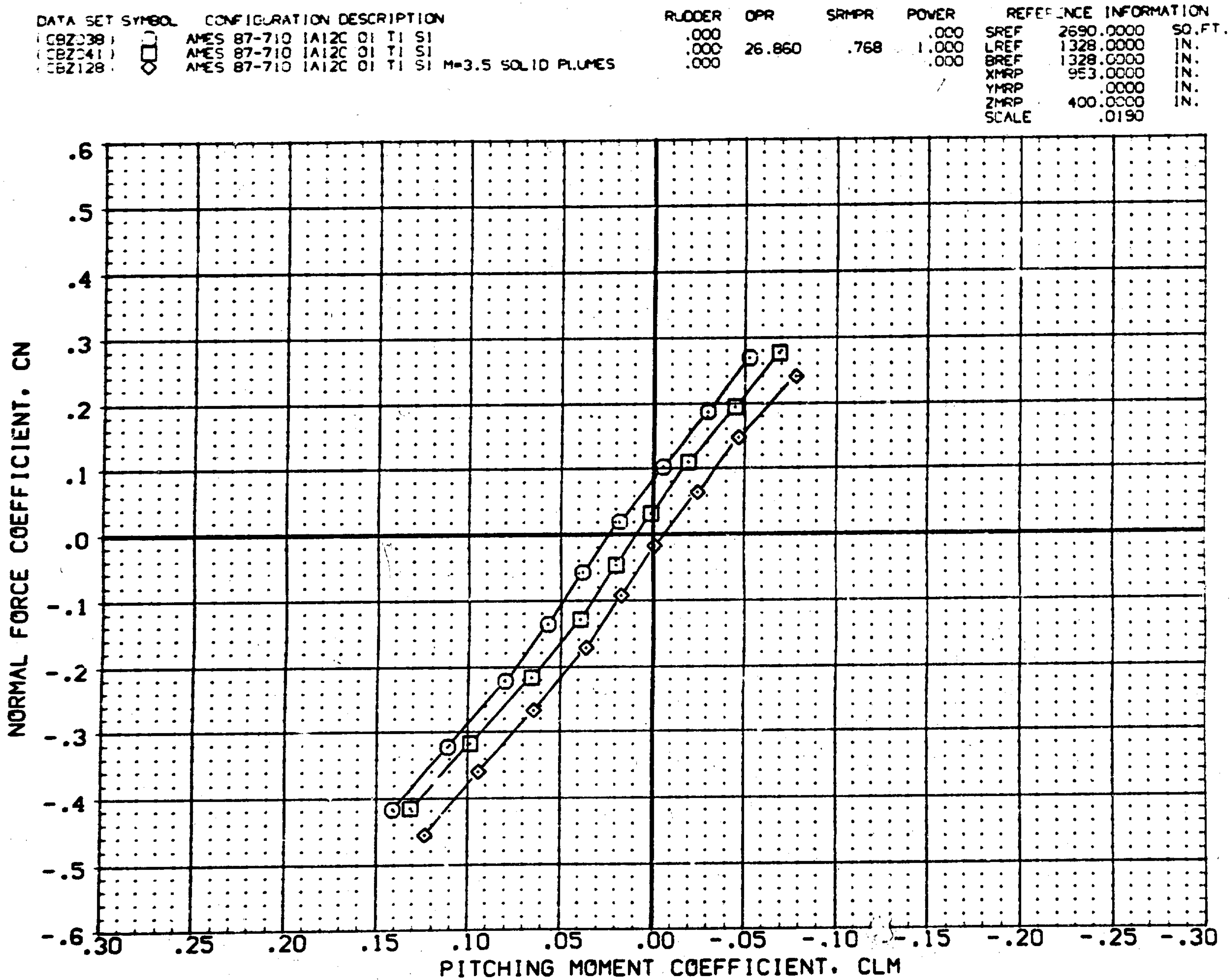
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ038)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ041)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(CBZ128)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

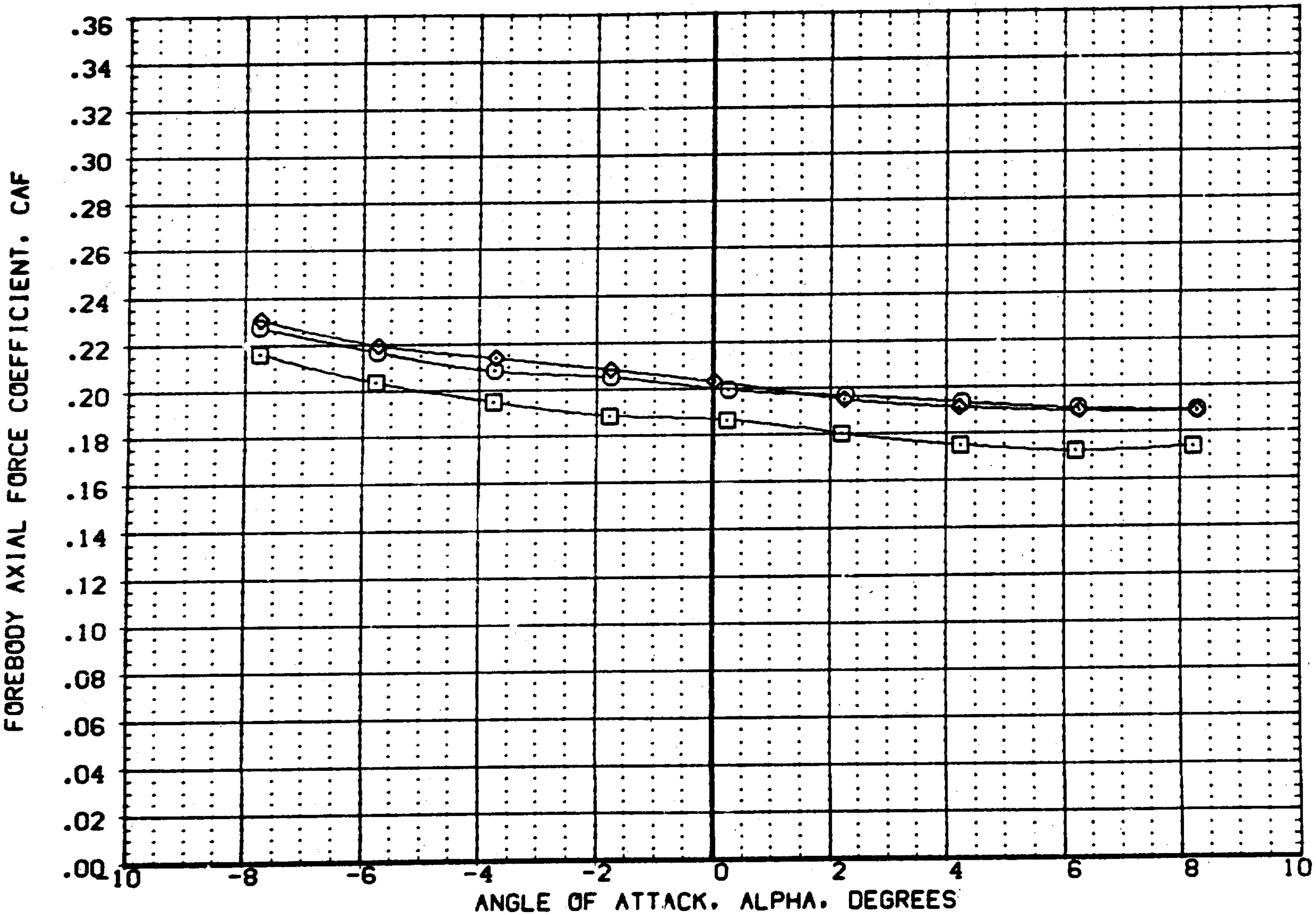


EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ050)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(CBZ131)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



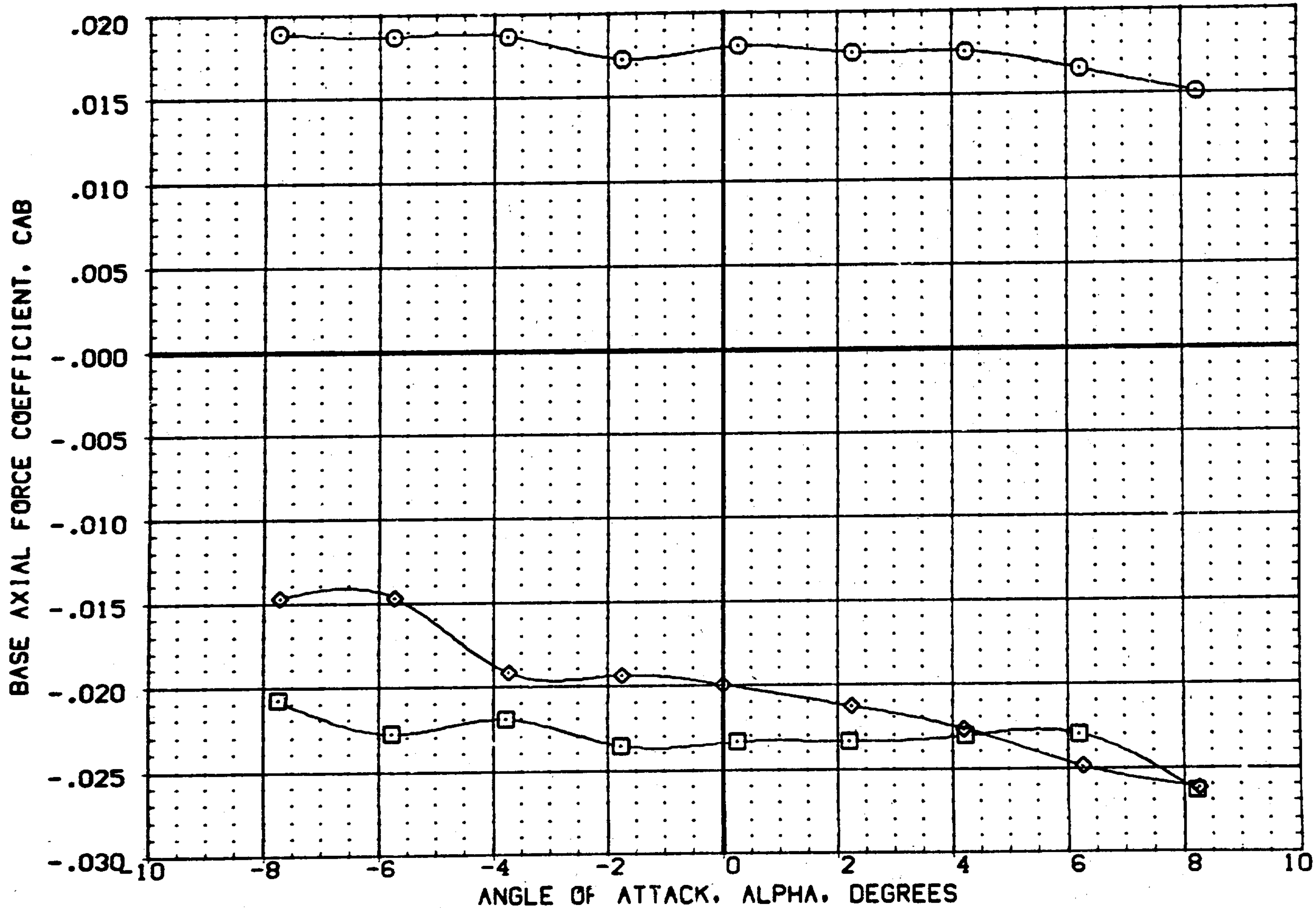
EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CBZ046)	○	AMES 87-710 IA12C OI TI SI	.000			.000
(CBZ050)	□	AMES 87-710 IA12C OI TI SI	.000	23.860	.826	1.000
(CBZ131)	◇	AMES 87-710 IA12C OI TI SI M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



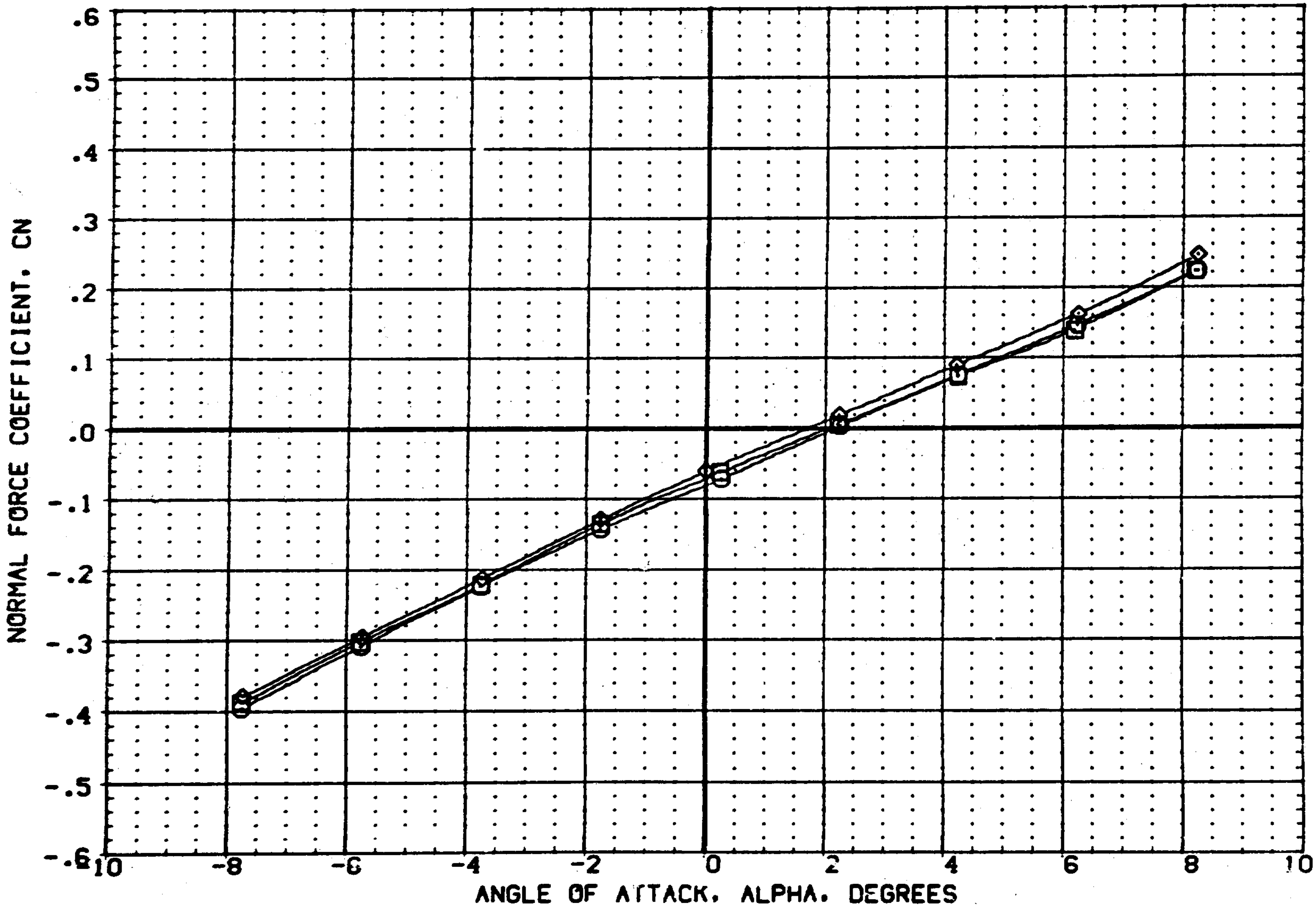
EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BZ046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BZ050)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BZ131)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



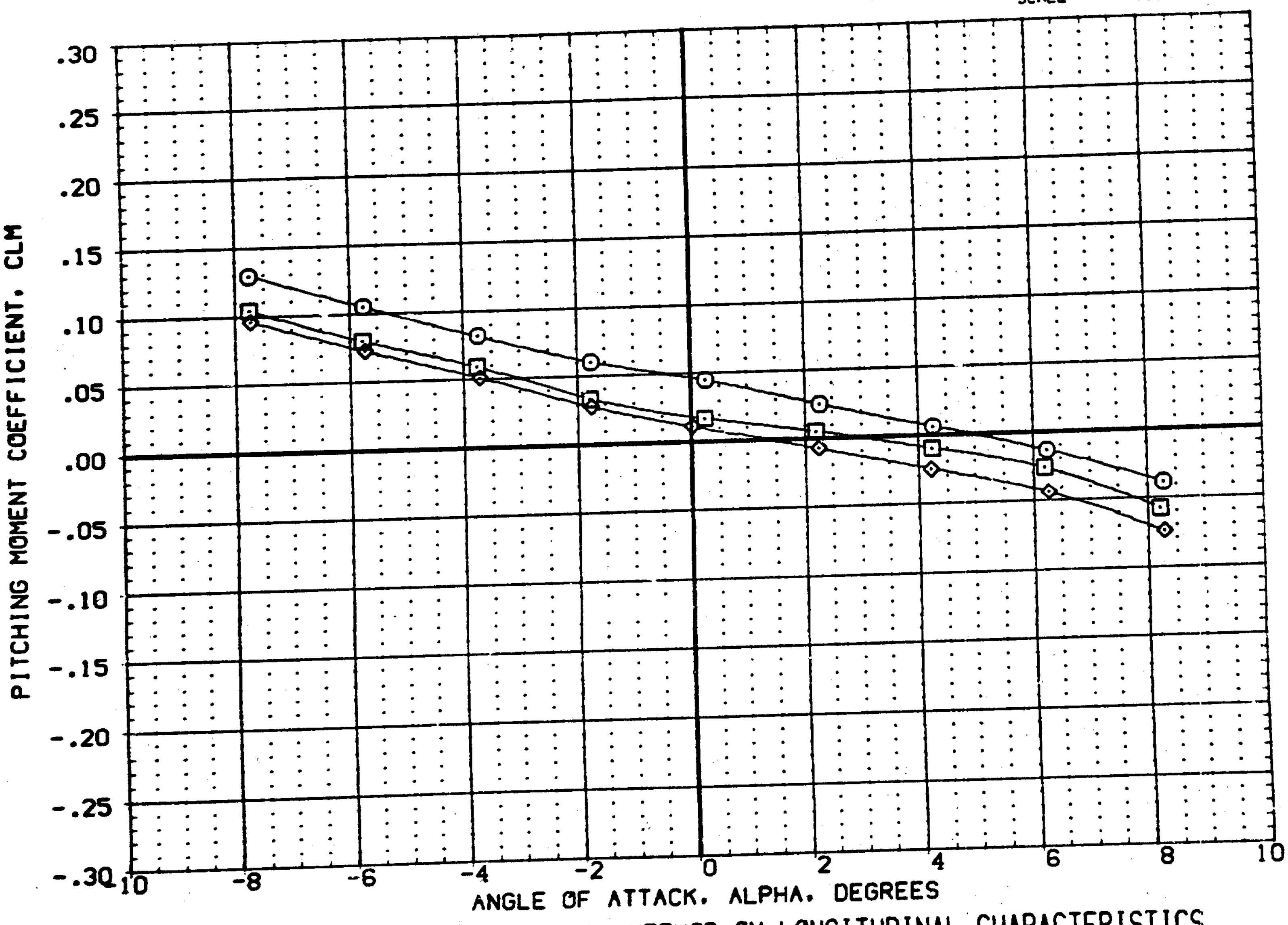
EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(CB7046)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(CBZ050)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(CBZ131)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

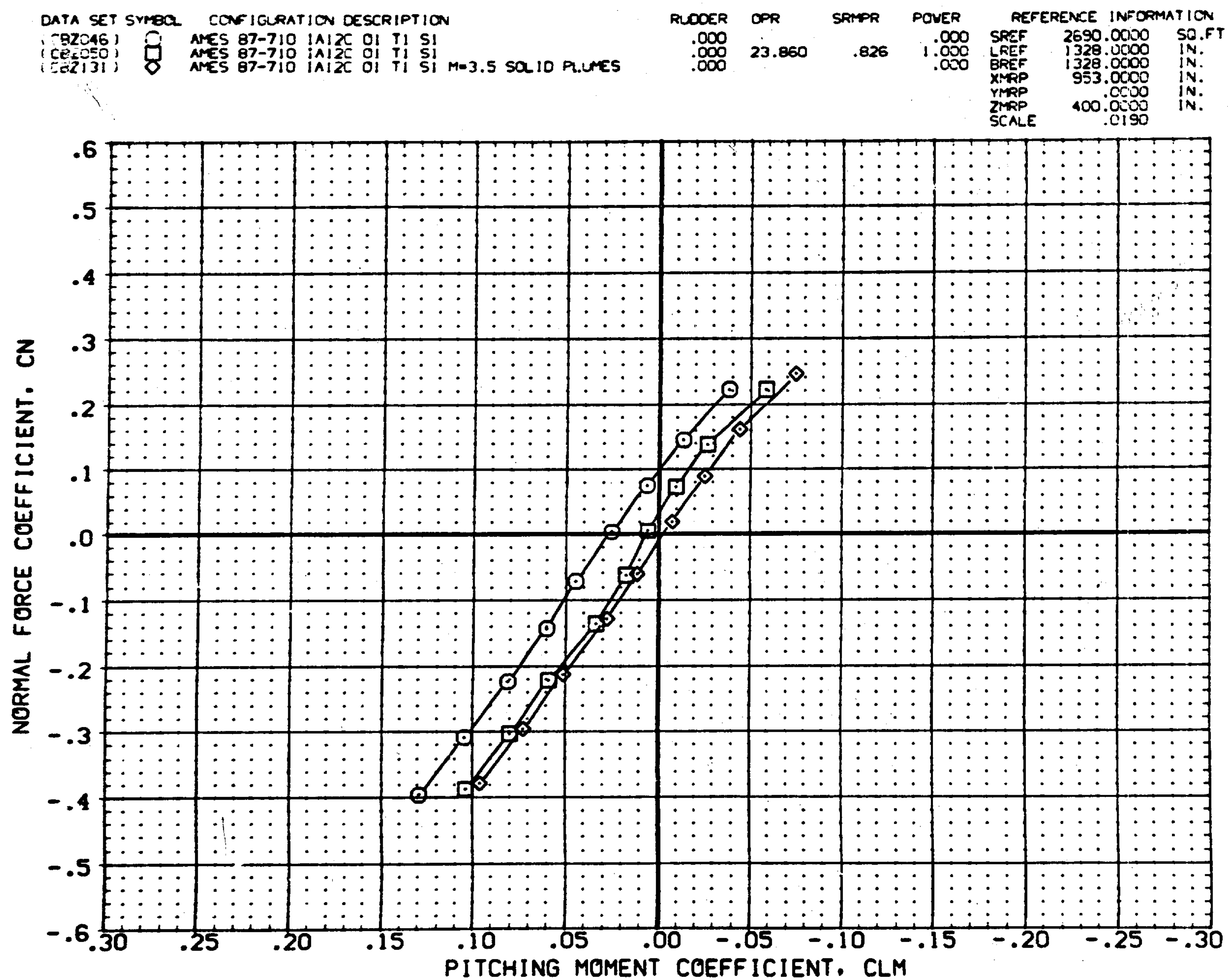
REFERENCE INFORMATION

SREF	2690.0000	SQ.FT
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50



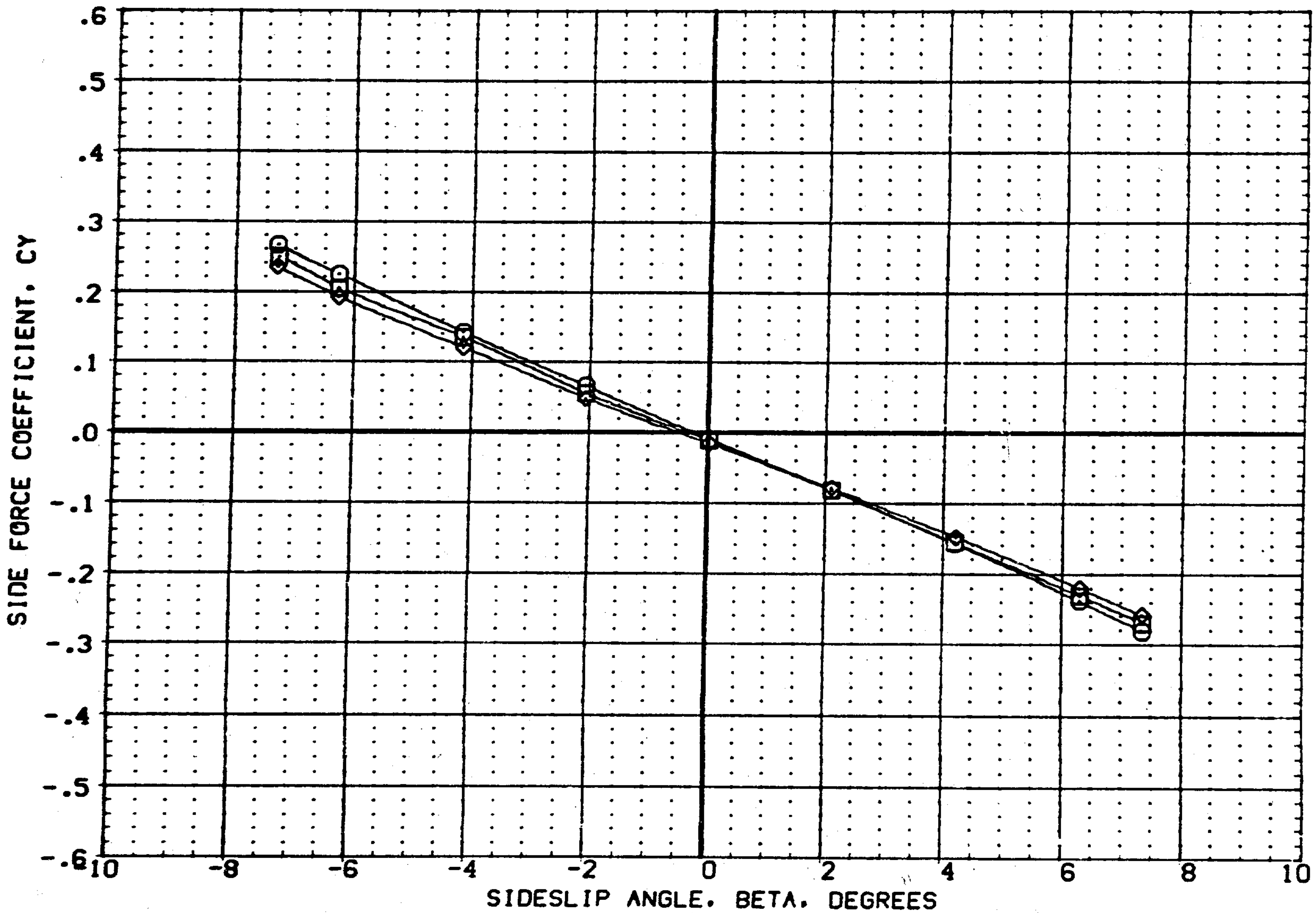
EFFECT OF PLUME SIMULATION METHOD ON LONGITUDINAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ040)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(BBZ129)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



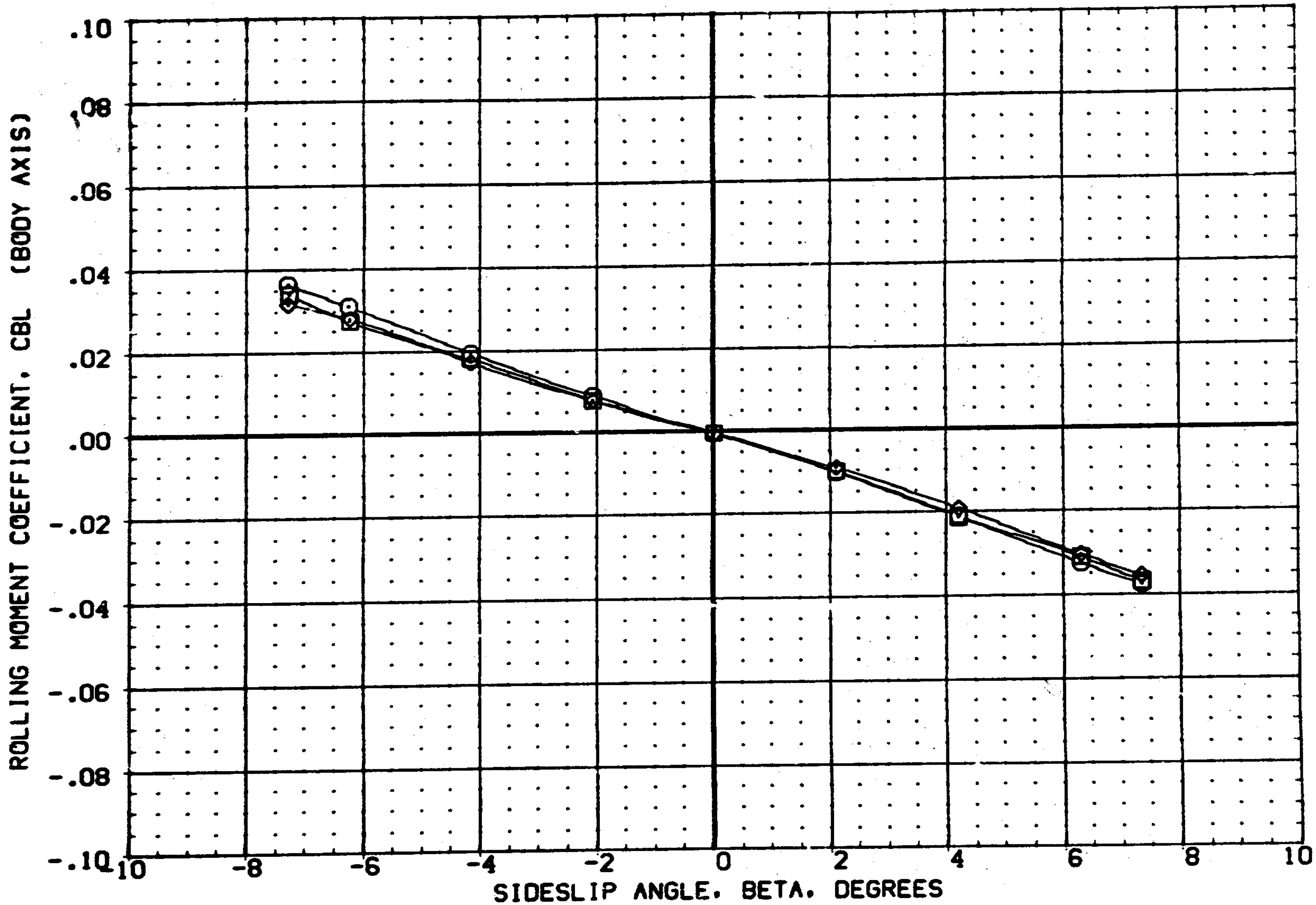
EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
BBZ039	○	AMES 87-710 IA12C 01 T1 S1
BBZ040	□	AMES 87-710 IA12C 01 T1 S1
BBZ129	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES

RUDDER	OPR	SRMPR	POWER
.000			.000
.000	26.860	.768	1.000
.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



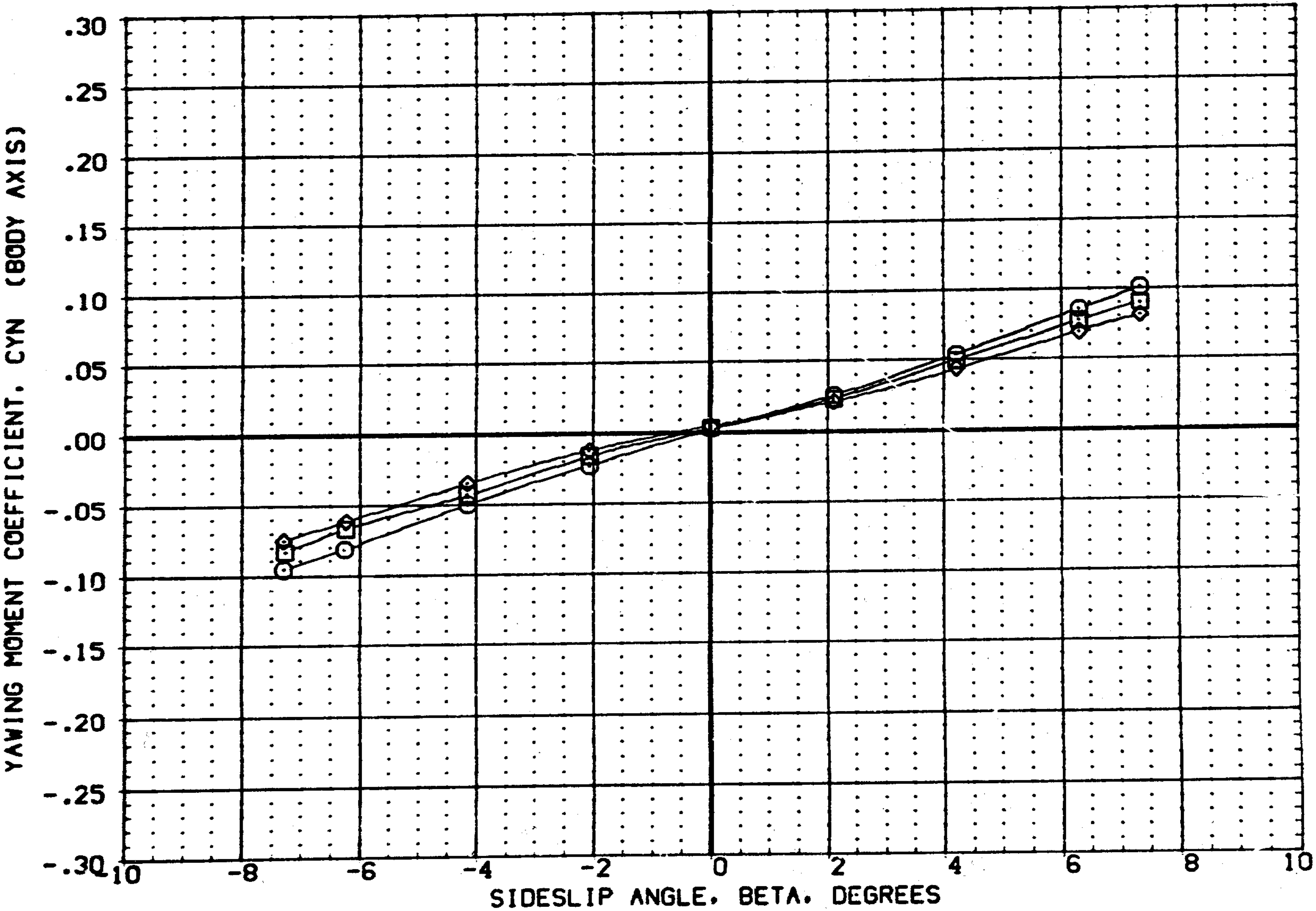
EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
6BZ039	○	AMES 87-710 IA12C O1 T1 S1	.000			.000
6BZ040	□	AMES 87-710 IA12C O1 T1 S1	.000	26.860	.768	1.000
8BZ129	◇	AMES 87-710 IA12C O1 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

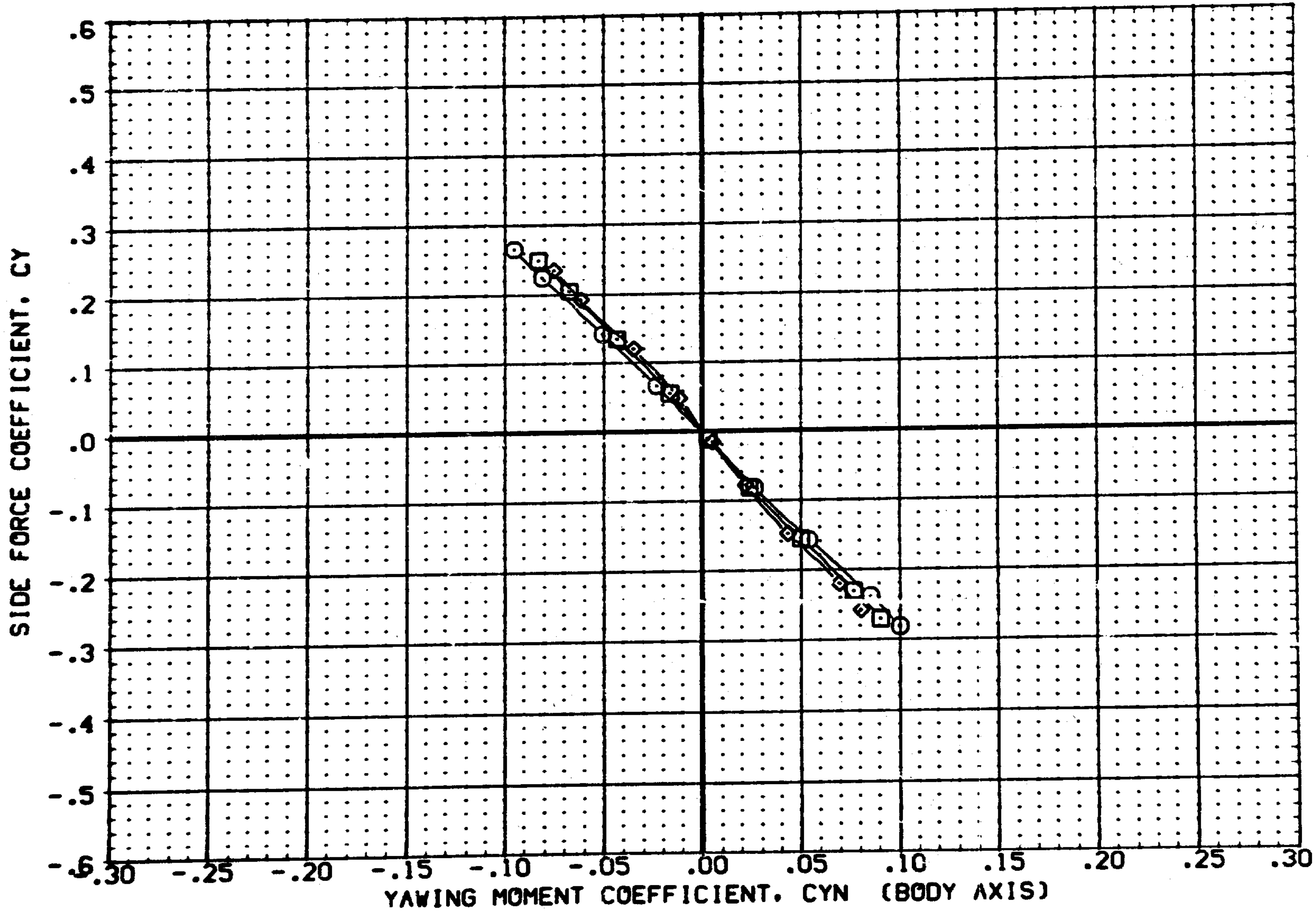


EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.00

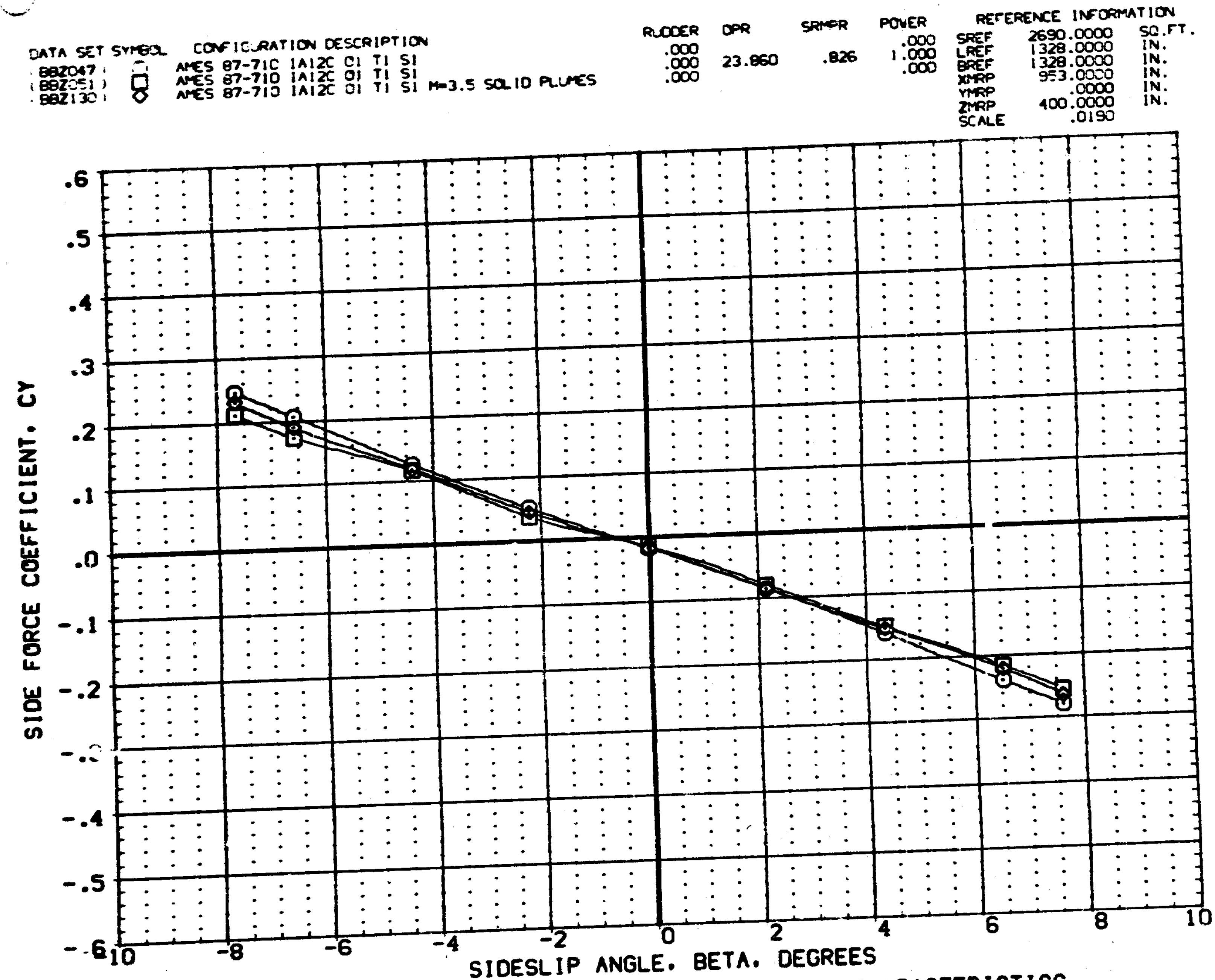
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ039)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ040)	□	AMES 87-710 IA12C 01 T1 S1	.000	26.860	.768	1.000
(BBZ129)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.00



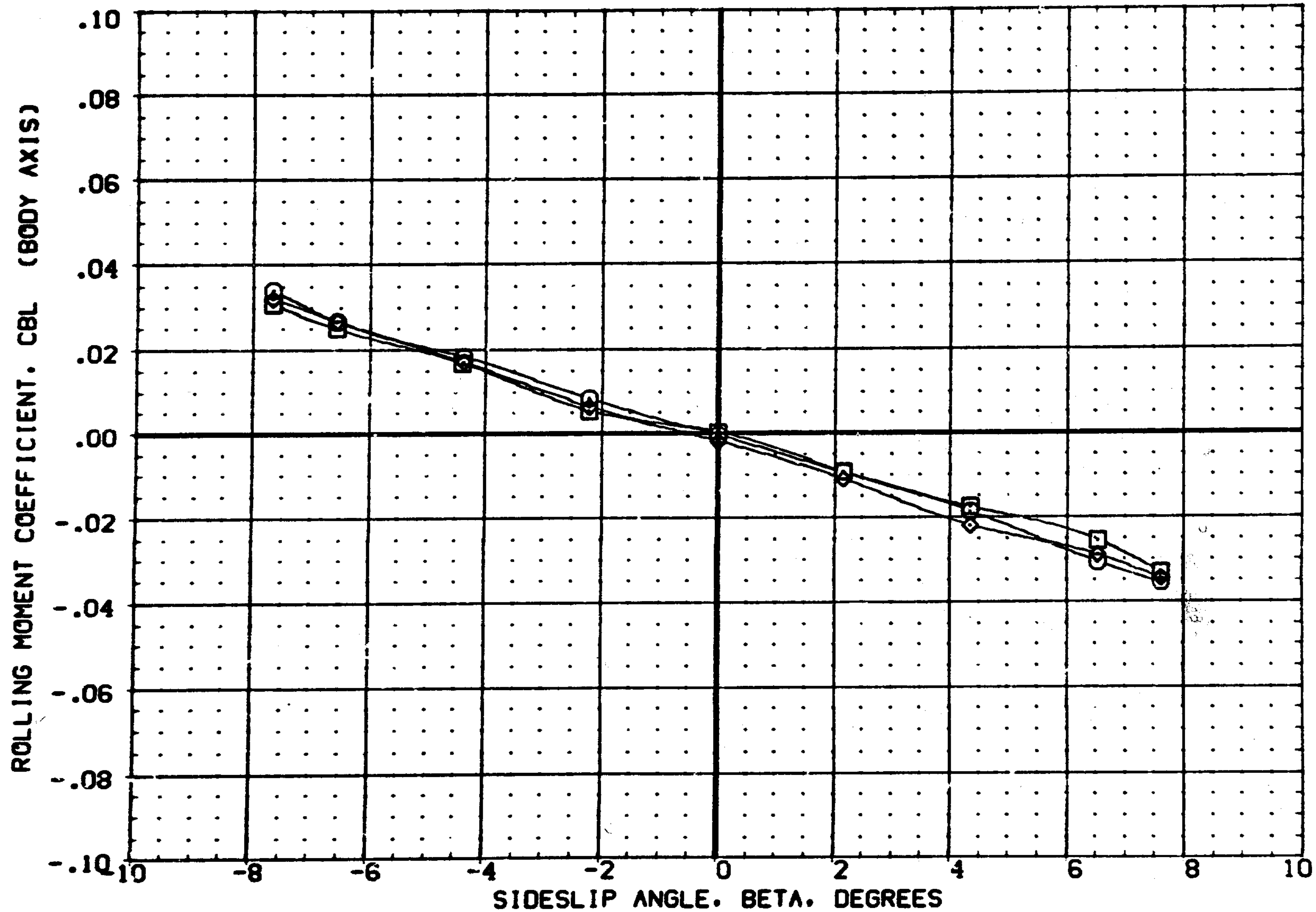
EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ047)	○	AMES 87-710 IA12C C1 T1 S1	.000			.000
(BBZ051)	□	AMES 87-710 IA12C O1 T1 S1	.000	23.860	.826	1.000
(BBZ130)	◇	AMES 87-710 IA12C C1 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



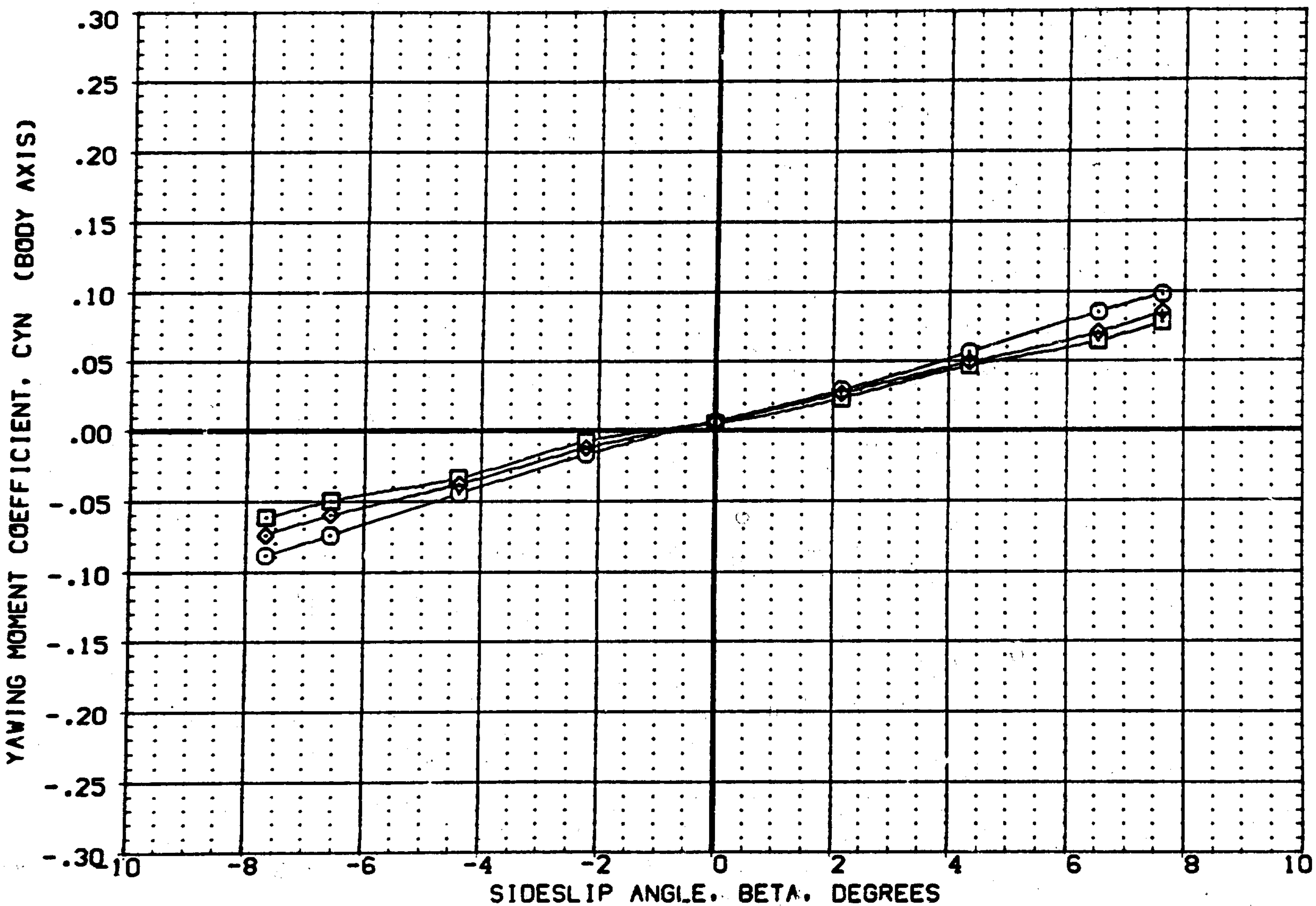
EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
88Z047	—	AMES 87-710 IA12C 01 T1 S1	.000			.000
88Z051	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
88Z130	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION

SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	95?.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	

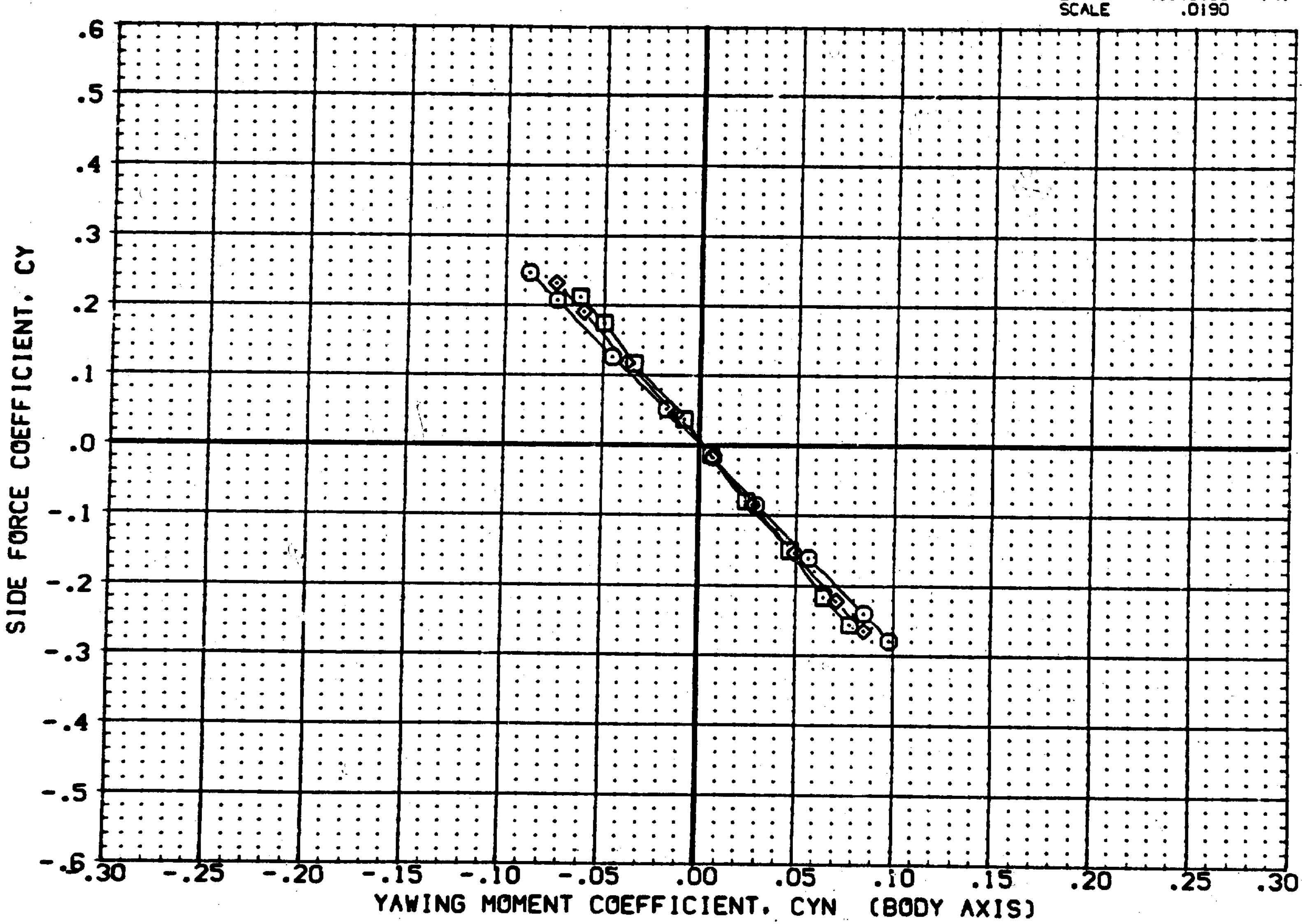


EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	RUDDER	OPR	SRMPR	POWER
(BBZ047)	○	AMES 87-710 IA12C 01 T1 S1	.000			.000
(BBZ051)	□	AMES 87-710 IA12C 01 T1 S1	.000	23.860	.826	1.000
(BBZ130)	◇	AMES 87-710 IA12C 01 T1 S1 M=3.5 SOLID PLUMES	.000			.000

REFERENCE INFORMATION		
SREF	2690.0000	SQ.FT.
LREF	1328.0000	IN.
BREF	1328.0000	IN.
XMRP	953.0000	IN.
YMRP	.0000	IN.
ZMRP	400.0000	IN.
SCALE	.0190	



EFFECT OF PLUME SIMULATION METHOD ON LATERAL CHARACTERISTICS

(A)MACH = 3.50

APPENDICES

TABULATED SOURCE DATA

(For Wing Pressure Data - See Volume III)

Tabulations of plotted data are available on request from Data Management Services.

APPENDIX A

Force Data

AMES 87-710 IA12C O2 T1 S1 (RBZ002) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 1328.0000 IN.
BREF = 1328.0000 IN.
SCALE = .0190

XMRP = 953.0000 IN.
YMRP = .0000 IN.
ZMRP = 400.0000 IN.

PARAMETRIC DATA

BETA = .000
POWER = .000
RUDDER = .000
MPSRA = .000
GIMBAL = 2.000

RUN NO. 2/ 0 RN/L = 3.85 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-6.860	-.38990	.29380	.13560	.00000	.00000	.24490	-.08070	-.00680	-.00410
2.498	-5.850	-.33440	.29030	.11660	.00000	.00000	.24210	-.06800	-.00150	-.00410
2.498	-3.860	-.22630	.28930	.08250	.00000	.00000	.23790	-.03960	.00950	-.00430
2.498	-1.840	-.13170	.28240	.05600	.00000	.00000	.23560	.00160	.02010	-.00430
2.498	.150	-.04050	.28080	.03160	.00000	.00000	.23390	.03420	.03180	-.00430
2.498	2.190	.04570	.27720	.00770	.00000	.00000	.23120	.06430	.04190	-.00410
2.498	4.170	.13500	.27350	-.01950	.00000	.00000	.22880	.08980	.05430	-.00480
2.498	6.150	.23360	.27360	-.05390	.00000	.00000	.23020	.12550	.06980	-.00630
2.498	8.170	.33930	.27320	-.09070	.00000	.00000	.23150	.16720	.08590	-.00900
	GRADIENT	.04480	-.00140	-.01256	.00000	.00000	-.00113	.01630	.00554	-.00004

AMES 87-710 IA12C O2 T1 S1 (RBZ004) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 1328.0000 IN.
BREF = 1328.0000 IN.
SCALE = .0190

XMRP = 953.0000 IN.
YMRP = .0000 IN.
ZMRP = 400.0000 IN.

PARAMETRIC DATA

BETA = .000
POWER = 1.000
SRMPR = .916
RUDDER = .000
MPSRA = .000
CPR = 19.400
GIMBAL = 2.000

RUN NO. 4/ 0 RN/L = 2.64 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.940	-.45360	.24630	.14950	.00000	.00000	.23630	-.10200	-.01130	-.00560
2.498	-5.870	-.33440	.23980	.10800	.00000	.00000	.22970	-.07470	-.00050	-.00560
2.498	-3.860	-.22420	.23500	.07090	.00000	.00000	.22510	-.04620	.01040	-.00560
2.498	-1.850	-.12610	.23280	.04280	.00000	.00000	.22310	-.00980	.02180	-.00520
2.498	.140	-.03810	.22980	.01960	.00000	.00000	.22140	.02330	.03330	-.00490
2.498	2.140	.04430	.22370	-.00160	.00000	.00000	.21760	.04700	.04310	-.00430
2.498	4.160	.13460	.22330	-.02710	.00000	.00000	.21720	.07630	.05600	-.00510
2.498	6.120	.22820	.22000	-.05840	.00000	.00000	.21810	.11580	.07060	-.00640
2.498	8.200	.33580	.21920	-.09490	.00000	.00000	.21970	.15690	.08670	-.00920
	GRADIENT	.04433	-.00161	-.01200	.00000	.00000	-.00106	.01907	.00562	.00009

AMES 87-710 IA12C O2 T1 S1 (RBZ005) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CFR = 19.400
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 5/ 0 RN/L = 2.67 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	.00000	.00000	.26630	-.08920	.03550	.22160	.10070	.06140	-.00820
2.498	-6.240	.00000	.00000	.22520	-.07480	.03010	.22000	.09040	.05640	-.00830
2.498	-4.180	.00000	.00000	.14480	-.04800	.01920	.21970	.05730	.04490	-.00770
2.498	-2.130	.00000	.00000	.07170	-.02410	[illegible]	.21910	.03080	.03920	-.00670
2.498	-.070	.00000	.00000	-.00150	.00050	-.00090	.21940	.01690	.03340	-.00480
2.498	1.990	.00000	.00000	-.07440	.02540	-.01040	.21990	.00070	.02860	-.00380
2.498	4.050	.00000	.00000	-.15180	.05290	-.02210	.21870	-.00890	.02660	-.00460
2.498	6.100	.00000	.00000	-.23290	.08110	-.03310	.21800	-.02100	.02580	-.00620
2.498	7.130	.00000	.00000	-.27510	.09650	-.03870	.21950	-.02420	.02540	-.00720
	GRADIENT	.00000	.00000	-.03592	.01221	-.00498	-.00006	-.00786	-.00225	.00044

AMES 87-710 IA12C O2 T1 S1 (RBZ006) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 6/ 0 RN/L = 4.83 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.260	.00000	.00000	.28080	-.10230	.03860	.22540	.09620	.06100	-.00720
2.498	-6.240	.00000	.00000	.23250	-.08350	.03160	.22290	.09390	.05570	-.00780
2.498	-4.180	.00000	.00000	.14850	-.05260	.01950	.22520	.05690	.04360	-.00780
2.498	-2.120	.00000	.00000	.07060	-.02530	.00910	.22550	.02980	.03770	-.00640
2.498	-.070	.00000	.00000	-.00080	.00000	-.00040	.22600	.02100	.03200	-.00480
2.498	1.990	.00000	.00000	-.07640	.02690	-.01010	.22450	-.01120	.02650	-.00290
2.498	4.050	.00000	.00000	-.15320	.05490	-.02160	.22290	-.02500	.02360	-.00150
2.498	6.100	.00000	.00000	-.23850	.08680	-.03400	.22150	-.04820	.02000	-.00220
2.498	7.130	.00000	.00000	-.28260	.10350	-.04060	.22360	-.05300	.01710	-.00320
	GRADIENT	.00000	.00000	-.03648	.01299	-.00493	-.00031	-.00996	-.00249	.00078

DATE 4 DEC 74 TABULATED SOURCE DATA - IA12C (FORCE DATA)

AMES 87-710 IA12C C2 T1 S1 (RBZ007) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1329.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 30.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 7/ 0 RN/L = 3.84 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.860	-.48200	.30030	.15650	-.00260	.03940	.25050	-.02170	-.01710	-.00180
2.499	-5.850	-.36710	.29420	.11880	-.00420	.03250	.24480	.00640	-.00670	-.00190
2.499	-3.840	-.26180	.28800	.08500	-.00680	.02570	.24010	.03620	.00440	-.00200
2.499	-1.820	-.16540	.28550	.05790	-.00980	.01850	.23790	.07650	.01510	-.00210
2.499	.170	-.07430	.28410	.03350	-.01290	.01130	.23590	.11080	.02680	-.00210
2.499	2.160	.01190	.28180	.00930	-.01610	.00180	.23490	.13710	.03730	-.00240
2.499	4.170	.10280	.27850	-.01810	-.02030	-.00920	.23290	.17280	.05340	-.00370
2.499	6.200	.20120	.27750	-.05250	-.02640	-.01740	.23380	.21440	.06610	-.00520
2.499	8.170	.30780	.27680	-.08930	-.03390	-.02200	.23430	.24940	.08220	-.00790
	GRADIENT	.04531	-.00114	-.01274	-.00167	-.00432	-.00093	.01667	.00571	-.00019

AMES 87-710 IA12C C2 T1 S1 (RBZ008) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 30.000
POWER = 1.000 CPR = 31.260
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 8/ 0 RN/L = 2.38 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.900	-.47200	.25080	.14770	.00430	.02750	.24260	-.02490	-.01600	-.00300
2.499	-5.930	-.35290	.24150	.10620	.00170	.02000	.23510	-.00040	-.00570	-.00310
2.499	-3.900	-.24250	.23590	.06900	-.00110	.01400	.23040	.03950	.00500	-.00320
2.499	-1.910	-.14590	.23320	.04040	-.00410	.00820	.22720	.07120	.01660	-.00280
2.499	[illegible]	-.05400	.22880	.01560	-.00740	.00130	.22520	.10370	.02820	-.00260
2.499	[illegible]	.02730	.22210	-.00530	-.01060	-.00730	.22190	.13620	.03480	-.00290
2.499	4.190	.11750	.22020	-.03070	-.01480	-.01390	.22050	.16490	.05150	-.00390
2.499	[illegible]	.21340	.22020	-.06180	-.02000	-.02050	.22260	.20240	.06650	-.00530
2.499	8.090	.31500	.21950	-.09610	-.02740	-.02520	.22480	.24050	.08200	-.00790
	GRADIENT	.04441	-.00211	-.01219	-.00167	-.00355	-.00125	.01571	.00572	[illegible]

AMES 87-710 IA12C C2 T1 S1 (RBZ009) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 30.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 9/ 0 RN/L = 3.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01380	-.00390	.27740	-.10300	.03870	.23400	.17800	.05670	-.00620
2.499	-6.240	-.01330	-.00180	.23240	-.08540	.03220	.23250	.17250	.05150	-.00670
2.499	-4.180	-.00830	.00480	.15000	-.05500	.02040	.23330	.12830	.03930	-.00590
2.499	-2.120	-.00720	.01130	.06940	-.02680	.00910	.23300	.09800	.03310	-.00410
2.499	-.070	-.00430	.01220	-.00670	.00020	-.00010	.23330	.09410	.02580	-.00230
2.499	1.990	-.00170	.01580	-.08090	.02610	-.01110	.23320	.08040	.01890	-.00040
2.499	4.050	-.00170	.01550	-.15960	.05510	-.02270	.22950	.04440	.01630	.00110
2.499	6.110	-.00120	.01480	-.24310	.08560	-.03470	.23140	.02680	.01220	-.00030
2.499	7.140	-.00210	.01430	-.29220	.10490	-.04150	.23340	.02080	.00990	-.00120
	GRADIENT	.00091	.00126	-.03741	.01327	-.00517	-.00036	-.00999	-.00293	.00086

AMES 87-710 IA12C C2 T1 S1 (RBZ010) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 30.000
POWER = 1.000 CPR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 10/ 0 RN/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01480	-.00980	.26180	-.08650	.03420	.22900	.18230	.05680	-.00730
2.499	-6.240	-.01310	-.00850	.21560	-.07040	.02810	.22800	.16990	.05160	-.00740
2.499	-4.180	-.00830	-.00100	.14110	-.04650	.01850	.22610	.12970	.03920	-.00640
2.499	-2.120	-.00710	.00080	.06640	-.02270	.00980	.22480	.11510	.03340	-.00440
2.499	-.080	-.00390	.00170	-.00810	.00120	-.00100	.22520	.09340	.02710	-.00230
2.499	2.000	-.00220	-.00600	-.08530	.02720	-.01140	.22680	.07440	.02340	-.00210
2.499	4.050	-.00320	-.01030	-.15930	.05230	-.02140	.22650	.07590	.02270	-.00350
2.499	6.110	-.00500	-.01220	-.24080	.08050	-.03350	.22620	.07200	.02220	-.00530
2.499	7.140	-.00610	-.01140	-.28200	.09580	-.03900	.22880	.06430	.02150	-.00620
	GRADIENT	.00073	-.00122	-.03656	.01203	-.00490	.00015	-.00721	-.00209	.00039

AMES 87-710 IA12C C2 T1 S1 (RBZ011) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 60.000
POWER = 1.000 CFR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 11/ 0 RN/L = 2.35 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.880	-.47180	.25250	.14740	-.00980	.02980	.24510	-.01280	-.01530	-.00120
2.499	-5.890	-.35590	.24350	.10640	-.01030	.02250	.23820	.01480	-.00510	-.00150
2.499	-3.890	-.24770	.23810	.06940	-.01160	.01720	.23230	.05320	.00590	-.00170
2.499	-1.890	-.14850	.23300	.03950	-.01410	.00990	.22880	.08490	.01730	-.00150
2.499	.110	-.05850	.22940	.01520	-.01690	.00330	.22710	.12080	.02870	-.00120
2.499	2.090	.02450	.22220	-.00630	-.01960	-.00550	.22350	.14390	.03970	-.00150
2.499	4.090	.11170	.21930	-.03090	-.02310	-.01170	.22090	.17620	.05190	-.00240
2.499	6.120	.20940	.21990	-.06240	-.02840	-.01820	.22400	.21410	.06730	-.00380
2.499	8.140	.31130	.22090	-.09650	-.03550	-.02300	.22650	.25080	.08270	-.00680
	GRADIENT	.04473	-.00243	-.01236	-.00143	-.00367	-.00141	.01530	.00578	-.00037

AMES 87-710 IA12C C2 T1 S1 (RBZ012) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 60.000
POWER = 1.000 CFR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 12/ 0 RN/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.02230	-.00780	.26020	-.08700	.03470	.22920	.19180	.05800	-.00590
2.499	-6.240	-.02010	-.00680	.21750	-.07130	.02920	.22840	.17920	.05310	-.00620
2.499	-4.180	-.01490	.00170	.14350	-.04740	.01930	.22760	.14140	.04030	-.00510
2.499	-2.120	-.01350	.00310	.06500	-.02210	.00850	.22640	.11540	.03460	-.00330
2.499	-.060	-.01000	.00460	-.00720	.00070	-.00100	.22630	.10140	.02800	-.00110
2.499	1.990	-.00840	-.00340	-.08110	.02580	-.01040	.22680	.07740	.02430	-.00080
2.499	4.050	-.00900	-.00700	-.14950	.04870	-.02160	.22710	.07960	.02330	-.00200
2.499	6.110	-.01080	-.00940	-.23430	.07790	-.03340	.22490	.07300	.02340	-.00400
2.499	7.140	-.01160	-.00860	-.28360	.09610	-.04020	.22710	.07310	.02340	-.00500
	GRADIENT	.00082	-.00116	-.03559	.01166	-.00490	-.00003	-.00786	-.00215	.00042

AMES 87-710 IA12C C2 T1 S1 (RBZ013) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 60.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 13/ 0 RN/L = 3.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.860	-.46360	.29910	.15500	.00580	.04150	.24850	-.02380	-.01580	-.00100
2.499	-5.880	-.35090	.29280	.11730	.00210	.03490	.24310	.00090	-.00510	-.00110
2.499	-3.870	-.24220	.28770	.08250	-.00110	.02820	.23870	.03260	.00580	-.00140
2.499	-1.860	-.14730	.28490	.05610	-.00420	.02120	.23610	.07260	.01610	-.00140
2.499	.170	-.05560	.28300	.03130	-.00800	.01360	.23430	.10560	.02810	-.00140
2.499	2.150	.02770	.28110	.00740	-.01270	.00490	.23350	.13700	.03860	-.00170
2.499	4.150	.11780	.27800	-.01980	-.01700	-.00580	.23150	.17290	.05150	-.00300
2.499	6.140	.21410	.27660	-.05290	-.02230	-.01370	.23140	.20790	.06620	-.00440
2.499	8.160	.32160	.27590	-.09000	-.02990	-.01950	.23280	.24880	.08200	-.00720
	GRADIENT	.04464	-.00116	-.01263	-.00201	-.00420	-.00085	.01721	.00568	-.00017

AMES 87-710 IA12C C2 T1 S1 (RBZ014) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 60.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 14/ 0 RN/L = 3.80 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01700	-.00180	.28180	-.10400	.03870	.23450	.17830	.05820	-.00500
2.499	-6.240	-.01610	.00040	.23650	-.08660	.03210	.23340	.16910	.05300	-.00560
2.499	-4.180	-.01070	.00680	.15320	-.05560	.02010	.23520	.12690	.04060	-.00480
2.499	-2.120	-.00920	.01420	.07860	-.02980	.00990	.23490	.10060	.03420	-.00280
2.499	-.070	-.00590	.01490	-.00130	-.00130	-.00060	.23550	.09170	.02700	-.00100
2.499	1.990	-.00330	.01850	-.07600	.02500	-.01100	.23320	.05640	.02010	.00110
2.499	4.050	-.00310	.01820	-.15320	.05340	-.02190	.23270	.04350	.01760	.00230
2.499	6.110	-.00250	.01730	-.23750	.08430	-.03410	.23220	.02520	.01350	.00120
2.499	7.130	-.00340	.01680	-.28650	.10320	-.04140	.23400	.02000	.01120	.00010
	GRADIENT	.00103	.00132	-.03731	.01326	-.00510	-.00033	-.01026	-.00292	.00088

DATE 04 DEC 74 TABULATED SOURCE DATA - IA12C(FORCE DATA)

(RBZ015) (24 JAN 74)

AMES 87-710 IA12C C2 T1 S1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 90.000
POWER = 1.000 CPR = 31.260
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 15/ 0 RN/L = 2.43 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.880	-.47530	.25100	.14870	-.00190	.02990	.24620	-.02710	-.01550	-.00230
2.499	-5.890	-.35890	.24230	.10720	-.00310	.02230	.23930	-.00020	-.00520	-.00260
2.499	-3.860	-.24880	.23670	.06990	-.00470	.01690	.23410	.03460	.00570	-.00260
2.499	-1.880	-.14960	.23410	.04030	-.00700	.01170	.23070	.06860	.01740	-.00230
2.499	.140	-.05970	.22860	.01570	-.00980	.00480	.22820	.10190	.02910	-.00210
2.499	2.130	.02340	.22300	-.00570	-.01270	-.00350	.22550	.13270	.03990	-.00250
2.499	4.140	.11080	.22030	-.03030	-.01640	-.00990	.22240	.16270	.05270	-.00330
2.499	6.160	.20620	.21850	-.06210	-.02160	-.01690	.22450	.20070	.06410	-.00480
2.499	8.120	.30820	.22010	-.09550	-.02890	-.02130	.22710	.23410	.08400	-.00760
	GRADIENT	.04459	-.00219	-.01231	-.00145	-.00344	-.00143	.01601	.00582	-.00008

(RBZ016) (24 JAN 74)

AMES 87-710 IA12C C2 T1 S1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 90.000
POWER = 1.000 CPR = 31.260
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 16/ 0 RN/L = 2.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01580	-.00610	.25870	-.08590	.03430	.22980	.17750	.05870	-.00680
2.499	-6.240	-.01350	-.00510	.21610	-.07070	.02880	.22810	.16310	.05340	-.00700
2.499	-4.180	-.00830	.00300	.13960	-.04620	.01810	.22790	.12270	.04110	-.00600
2.499	-2.120	-.00690	.00520	.06920	-.02390	.00920	.22680	.10020	.03520	-.00420
2.499	-.060	-.00340	.00650	-.00780	.00110	-.00040	.22630	.08270	.02840	-.00210
2.499	1.990	-.00180	-.00260	-.07820	.02380	-.00990	.22740	.06840	.02490	-.00190
2.499	4.050	-.00270	-.00590	-.15600	.05090	-.02240	.22690	.06530	.02400	-.00330
2.499	6.110	-.00450	-.00790	-.23810	.07920	-.03330	.22570	.05950	.02380	-.00510
2.499	7.140	-.00520	-.00740	-.28080	.09480	-.03880	.22730	.05790	.02390	-.00620
	GRADIENT	.00079	-.00124	-.03591	.01176	-.00487	-.00011	-.00752	-.00216	.00037

AMES 87-710 IA12C C2 T1 S1 (RBZ017) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MFSRA = 90.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 17/ 0 RN/L = 3.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01210	.00080	.27810	-.10330	.03900	.23380	.16190	.05820	-.00610
2.499	-6.240	-.01240	.00290	.23090	-.08470	.03230	.23240	.15690	.05320	-.00640
2.499	-4.180	-.00730	.00980	.14400	-.05240	.01830	.23280	.12080	.04030	-.00570
2.499	-2.120	-.00610	.01630	.06700	-.02540	.00830	.23380	.09040	.03430	-.00380
2.499	-.070	-.00270	.01730	-.00600	.00000	-.00010	.23500	.08440	.02730	-.00190
2.499	2.000	.00030	.02110	-.08500	.02780	-.01090	.23390	.05280	.02040	-.00020
2.499	4.050	.00050	.02080	-.16230	.05610	-.02280	.23120	.04150	.01810	.00150
2.499	6.110	.00120	.02010	-.24620	.08680	-.03500	.23160	.01610	.01370	.00010
2.499	7.140	.00020	.01970	-.29060	.10380	-.04120	.23350	.01260	.01130	-.00100
	GRADIENT	.00107	.00132	-.03715	.01312	-.00493	-.00014	-.00954	-.00283	.00086

AMES 87-710 IA12C C2 T1 S1 (RBZ018) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MFSRA = 90.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 18/ 0 RN/L = 3.89 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.830	-.46410	.29830	.15540	.01110	.04400	.24850	-.04690	-.01520	-.00200
2.499	-5.820	-.34980	.29170	.11710	.00770	.03710	.24270	-.02250	-.00450	-.00210
2.499	-3.830	-.24200	.28670	.08280	.00460	.03040	.23860	.01010	.00640	-.00230
2.499	-1.840	-.14750	.28400	.05670	.00150	.02350	.23600	.05170	.01660	-.00240
2.499	.190	-.05710	.28240	.03230	-.00210	.01610	.23530	.08570	.02850	-.00230
2.499	2.210	.02710	.27890	.00860	-.00580	.00680	.23230	.11720	.03880	-.00280
2.499	4.160	.11690	.27710	-.01890	-.01020	-.00380	.23160	.15240	.05160	-.00400
2.499	6.190	.21420	.27600	-.05250	-.01630	-.01210	.23190	.18860	.06690	-.00560
2.499	8.200	.32070	.27530	-.08940	-.02380	-.01780	.23320	.23190	.08270	-.00840
	GRADIENT	.04455	-.00121	-.01255	-.00184	-.00425	-.00088	.01748	.00562	-.00019

AMES 87-710 IA12C O2 T1 S1 (RB2019) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 120.000
POWER = 1.000 CPR = 31.260
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 19/ 0 RN/L = 2.41 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.900	-.47260	.25020	.14880	-.00850	.02840	.24490	-.00680	-.01550	-.00120
2.499	-5.880	-.35610	.24170	.10690	-.01000	.02100	.23740	.01960	-.00490	-.00150
2.499	-3.850	-.24630	.23680	.06980	-.01170	.01530	.23390	.05630	.00580	-.00150
2.499	-1.900	-.14730	.23290	.04020	-.01370	.00930	.22930	.09240	.01710	-.00130
2.499	.130	-.05820	.22910	.01610	-.01690	.00300	.22750	.12480	.02900	-.00100
2.499	2.100	.02620	.22370	-.00620	-.01940	-.00520	.22510	.15230	.03960	-.00140
2.499	4.110	.11440	.22030	-.03130	-.02290	-.01190	.22240	.17850	.05240	-.00210
2.499	6.140	.20850	.22140	-2662.00000	-.02800	-.01790	-8773.00000	.21980	.06760	-.00360
2.499	8.130	.31240	.22010	-.09630	-.03500	-.02310	.22710	.25990	.08340	-.00640
	GRADIENT	.04492	-.00212	-.01248	-.00141	-.00346	-.00136	.01527	.00581	-.00057

AMES 87-710 IA12C O2 T1 S1 (RB2020) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 120.000
POWER = 1.000 CPR = 31.260
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 20/ 0 RN/L = 2.39 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.02230	-.00840	.26300	-.08710	.03440	.23030	.20000	.05810	-.00580
2.499	-6.240	-.02030	-.00680	.22090	-.07300	.03010	.22850	.18440	.05310	-.00600
2.499	-4.180	-.01510	.00120	.14030	-.04640	.01790	.22840	.14540	.04060	-.00500
2.499	-2.130	-.01360	.00320	.06030	-.02040	.00820	.22680	.12320	.03490	-.00310
2.499	-.070	-.01000	.00410	-.00610	.00050	-.00200	.22480	.10560	.02800	-.00100
2.499	2.000	-.00860	-.00420	-.08060	.02490	-.01090	.22910	.08920	.02450	-.00070
2.499	4.050	-.00930	-.00760	-.15270	.04980	-.02160	.22850	.09110	.02350	-.00200
2.499	6.110	-.01100	-.00970	-.23180	.07710	-.03250	.22650	.08170	.02370	-.00400
2.499	7.130	-.01170	-.00880	-.27600	.09330	-.03860	.22950	.07880	.02360	-.00490
	GRADIEI T	.00081	-.00122	-.03530	.01154	-.00476	.00012	-.00693	-.00217	.00041

AMES 87-710 IA12C OR T1 S1 (RBZ021) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 120.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 21/ 0 RN/L = 3.52 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01900	-.00140	.28140	-.10420	.03900	.23680	.18930	.05800	-.00470
2.499	-6.230	-.01870	.00080	.23460	-.08600	.03240	.19740	.[illegible]7780	.05290	-.00510
2.499	-[illegible].180	-.01370	.00750	.15070	-.05490	.01960	.23690	.14550	.04000	-.00430
2.499	-2.120	-.01250	.01410	.07280	-.02750	.01030	.23610	.11500	.03400	-.00230
2.499	-.070	-.00920	.01500	-.00650	.00040	-.00050	.23680	.10740	.02690	-.00070
2.499	2.000	-.00610	.01870	-.08160	.02680	-.01140	.23530	.06960	.02030	.00120
2.499	4.050	-.00600	.01850	-.16000	.05550	-.02260	.23390	.06170	.01790	.00250
2.499	6.110	-.00590	.01820	-.24020	.08480	-.03470	.23330	.03820	.01370	.00140
2.499	7.130	-.00690	.01780	-.28690	.10300	-.04130	.23540	.03480	.01120	.00040
	GRADIENT	.00106	.00129	-.03770	.01336	-.00516	-.00033	-.01035	-.00281	.00083

AMES 87-710 IA12C OR T1 S1 (RBZ022) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 120.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 22/ 0 RN/L = 3.85 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.850	-.46070	.30040	.15470	.00450	.04190	.25040	-.02390	-.01550	-.00070
2.499	-5.840	-.34850	.29370	.11680	.00110	.03500	.24440	.00020	-.00490	-.00080
2.499	-3.870	-.24200	.28910	.08260	-.00200	.02850	.24080	.03340	.00610	-.00100
2.499	-1.830	-.14530	.28610	.05580	-.00500	.02120	.23820	.07310	.01670	-.00100
2.499	.190	-.05370	.28430	.03120	-.00890	.01370	.23660	.10870	.02850	-.00100
2.499	2.170	.03130	.28080	.00740	-.01240	.00460	.23390	.13830	.03880	-.00140
2.499	4.180	.12090	.27900	-.02000	-.01690	-.00610	.23370	.17340	.05170	-.00260
2.499	6.130	.21680	.27900	-.05280	-.02280	-.01400	.23510	.21170	.06670	-.00420
2.499	8.160	.32410	.27670	-.09040	-.03080	-.01970	.23430	.24980	.08300	-.00700
	GRADIENT	.04481	-.00127	-.01264	-.00185	-.00427	-.00092	.01718	.00564	-.00018

AMES 87-710 IA12C O2 T1 S1 (RBZ023) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 150.000
POWER = 1.000 CPR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 23/ 0 RN/L = 2.38 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.890	-.46810	.24880	.14790	.00340	.02970	.24400	-.03090	-.01500	-.00200
2.498	-5.870	-.35060	.24190	.10610	.00140	.02250	.23720	-.00750	-.00440	-.00230
2.498	-3.890	-.24210	.23640	.06920	-.00070	.01670	.23330	.02930	.00640	-.00240
2.498	-1.890	-.14480	.23450	.04010	-.00320	.01130	.23100	.06430	.01790	-.00200
2.498	.140	-.05290	.22940	.01500	-.00630	.00450	.22840	.09540	.03000	-.00180
2.498	2.120	.03050	.22490	-.00670	-.00950	-.00340	.22580	.12550	.04080	-.00210
2.498	4.130	.11780	.22050	-.03150	-.01360	-.01020	.22190	.16170	.05360	-.00300
2.498	6.130	.21260	.22200	-.06230	-.01930	-.01690	.22610	.20110	.06930	-.00490
2.498	8.160	.31800	.22000	-.09750	-.02650	-.02130	.22690	.23490	.08560	-.00730
	GRADIENT	.04465	-.00206	-.01238	-.00160	-.00342	-.00145	.01626	.00584	-.00006

AMES 87-710 IA12C O2 T1 S1 (RBZ024) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 150.000
POWER = 1.000 CPR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 24/ 0 RN/L = 2.38 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	-.01210	-.00700	.26200	-.08620	.03370	.22900	.18010	.05920	-.00650
2.498	-6.240	-.01000	-.00540	.22170	-.07310	.02910	.22720	.16170	.05380	-.00680
2.498	-4.180	-.00500	.00250	.14120	-.04680	.01880	.22780	.12180	.04180	-.00570
2.498	-2.120	-.00360	.00460	.07010	-.02440	.00880	.22520	.09950	.03580	-.00390
2.498	-.070	-.00010	.00590	-.00530	.00070	-.00180	.22610	.08370	.02900	-.00180
2.498	1.990	.00150	-.00240	-.07680	.02430	-.00980	.22710	.06100	.02520	-.00150
2.498	4.050	.00040	-.00620	-.15080	.04980	-.02160	.22700	.06140	.02430	-.00280
2.498	6.110	-.00160	-.00810	-.23530	.07890	-.03360	.22590	.05650	.02410	-.00490
2.498	7.140	-.00230	-.00770	-.27710	.09370	-.03880	.22750	.05160	.02440	-.00590
	GRADIENT	.00077	-.00119	-.03553	.01177	-.00483	.00001	-.00774	-.00220	.00040

AMES 87-710 IA12C C2 T1 S1 (RBZ025) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = 150.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 25/ 0 RN/L = 3.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	-.00920	.00060	.27970	-.10340	.03640	.23490	.16420	.05900	-.00560
2.498	-6.240	-.00880	.00280	.23530	-.08610	.03250	.23350	.15680	.05370	-.00600
2.498	-4.180	-.00390	.00920	.14780	-.05400	.01960	.23460	.11620	.04090	-.00520
2.498	-2.120	-.00290	.01570	.06960	-.02590	.00840	.23410	.09190	.03530	-.00320
2.498	-.070	.00040	.01690	-.00520	.00040	-.00110	.23490	.08210	.02810	-.00190
2.498	1.990	.00350	.02070	-.08130	.02720	-.01130	.23380	.04500	.02160	.00020
2.498	4.050	.00370	.02050	-.15780	.05520	-.02210	.23190	.02940	.01970	.00190
2.498	6.100	.00400	.01980	-.23990	.08520	-.03400	.23180	.01290	.01450	.00050
2.498	7.140	.00320	.01950	-.28850	.10270	-.04070	.23230	.00640	.01200	-.00070
	GRADIENT	.00105	.00134	-.03705	.01320	-.00504	-.00028	-.01072	-.00280	.00086

AMES 87-710 IA12C C2 T1 S1 (RBZ026) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = 150.000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 26/ 0 RN/L = 3.91 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.850	-.45870	.29840	.15510	.01460	.04430	.24860	-.05190	-.01460	-.00150
2.498	-5.860	-.34530	.29150	.11720	.01130	.03790	.24250	-.02270	-.00420	-.00160
2.498	-3.850	-.23720	.28790	.08280	.00820	.03090	.24080	.01300	.00690	-.00190
2.498	-1.810	-.14030	.28380	.05550	.00500	.02370	.23630	.04860	.01760	-.00200
2.498	.170	-.05030	.28270	.03130	.00140	.01630	.23500	.08140	.02960	-.00190
2.498	2.160	.03410	.27920	.00780	-.00220	.00700	.23260	.11470	.03980	-.00240
2.498	4.160	.12460	.27650	-.01980	-.00690	-.00370	.23110	.14860	.05300	-.00360
2.498	6.150	.22280	.27600	-.05380	-.01310	-.01190	.23160	.18850	.06850	-.00520
2.498	8.180	.32910	.27520	-.09080	-.02050	-.01720	.23340	.23110	.08460	-.00810
	GRADIENT	.04493	-.00137	-.01266	-.00186	-.00430	-.00114	.01687	.00572	-.00019

AMES 87-710 IA12C C2 T1 S1 (RBZ027) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CPR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 27/ 0 RN/L = 2.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.900	-.47140	.24990	.14870	-.00500	.02780	.24370	-.01150	-.01520	-.00150
2.498	-5.890	-.35420	.24120	.10690	-.00700	.01980	.23650	.01540	-.00480	-.00180
2.498	-3.900	-.24350	.23450	.06910	-.00930	.01330	.23260	.05080	.00600	-.00180
2.498	-1.890	-.14680	.23270	.04030	-.01190	.00810	.22860	.08560	.01790	-.00140
2.498	.130	-.05490	.22800	.01560	-.01490	.00170	.22630	.11490	.02950	-.00120
2.498	2.080	.02680	.22230	-.00550	-.01810	-.00620	.22390	.14340	.03980	-.00150
2.498	4.100	.11590	.21880	-.03100	-.02220	-.01300	.22140	.17810	.05270	-.00240
2.498	6.130	.21000	.21810	-.06160	-.02750	-.01940	.22390	.21630	.06770	-.00370
2.498	8.140	.31340	.21830	-.09640	-.03460	-.02450	.22590	.25790	.08380	-.00660
	GRADIENT	.04469	-.00209	-.01232	-.00160	-.00335	-.00134	.01565	.00579	-.00006

AMES 87-710 IA12C C2 T1 S1 (RBZ028) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 31.280
SRMPR = .916 GIMBAL = 2.000
RUDDER = .000

RUN NO. 28/ 0 RN/L = 2.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	-.02270	-.01000	.27130	-.09040	.03560	.23000	.20140	.05970	-.00560
2.498	-6.240	-.02040	-.00840	.22670	-.07440	.02980	.22800	.18890	.05420	-.00600
2.498	-4.180	-.01480	-.00170	.15080	-.04970	.01990	.22830	.14790	.04240	-.00500
2.498	-2.130	-.01310	.00120	.07590	-.02590	.00980	.22750	.11850	.03500	-.00360
2.498	-.070	-.00980	.00290	.00280	-.00280	.00020	.22640	.10120	.02960	-.00110
2.498	1.990	-.00830	-.00500	-.07230	.02230	-.01020	.22810	.08680	.02580	-.00070
2.498	4.040	-.00900	-.00980	-.14500	.04680	-.02090	.22700	.08450	.02440	-.00210
2.498	6.110	-.01070	-.01190	-.22510	.07450	-.03120	.22590	.07950	.02500	-.00410
2.498	7.130	-.01170	-.01110	-.26900	.09020	-.03730	.22750	.07650	.02490	-.00500
	GRADIENT	.00080	-.00112	-.03598	.01173	-.00494	-.00010	-.00771	-.00224	.00042

AMES 87-710 IA12C C2 T1 S1 (RBZ029) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 29/ 0 RN/L = 3.86 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	-.01880	-.00310	.28920	-.10720	.04010	.23640	.19020	.05950	-.00490
2.498	-6.240	-.01880	-.00110	.24050	-.08780	.03300	.23350	.18320	.05410	-.00540
2.498	-4.180	-.01380	.00490	.15380	-.05570	.02090	.23620	.14590	.04190	-.00470
2.498	-2.130	-.01240	.01250	.07690	-.02870	.01030	.23420	.116[illegible]	.03900	-.00270
2.498	-.070	-.00930	.01370	.00140	-.00240	-.00020	.23460	.10930	.02820	-.00100
2.498	1.990	-.00630	.01730	-.07450	.02420	-.01040	.23440	.07530	.02160	.00090
2.498	4.050	-.00560	.01730	-.15540	.05410	-.02160	.23240	.05980	.01890	.00250
2.498	6.100	-.00530	.01670	-.23550	.08340	-.03400	.23180	.04100	.01470	.00140
2.498	7.130	-.00820	.01610	-.27920	.10020	-.04030	.23380	.03310	.01200	.00140
	GRADIENT	.00107	.00144	-.03739	.01324	-.00514	-.00036	-.01038	-.00289	.00087

AMES 87-710 IA12C C2 T1 S1 (RBZ030) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = .000 GIMBAL = 2.000
RUDDER = .000

RUN NO. 30/ 0 RN/L = 3.79 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.830	-.46050	.29880	.15460	.00450	.04080	.24790	-.02910	-.01520	-.00080
2.498	-5.840	-.34950	.29320	.11760	.00130	.03410	.24390	.00030	-.00470	-.00090
2.498	-3.850	-.24190	.28800	.08320	-.00160	.02750	.23950	.02960	.00620	-.00110
2.498	-1.840	-.14460	.28500	.05600	-.00470	.02030	.23670	.06830	.01670	-.00120
2.498	.160	-.05690	.28320	.03250	-.00840	.01300	.23550	.10350	.02840	-.00110
2.498	2.160	.02940	.27990	.00850	-.01190	.00370	.23280	.13790	.03870	-.00160
2.498	4.170	.11970	.27750	-.01940	-.01650	-.00690	.23120	.17360	.05170	-.00270
2.498	6.210	.21670	.27740	-.05270	-.02260	-.01500	.23310	.21110	.06710	-.00430
2.498	8.190	.32380	.27670	-.08980	-.03030	-.02060	.23410	.25120	.08290	-.00710
	GRADIENT	.04477	-.00130	-.01261	-.00185	-.00426	-.00102	.01784	.00564	-.00018

AMES 87-710 IA12C O1 T1 S1 (RBZ031) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = .000 GIMBAL = 1.000
RUDDER = .000

RUN NO. 31/ 0 RN/L = 3.93 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.840	-.47690	.30440	.15810	-.00080	.04320	.25580	-.03430	-.01630	-.00150
2.499	-5.830	-.36300	.29780	.12020	-.00310	.03680	.24930	-.00790	-.00590	-.00160
2.499	-3.840	-.25580	.29280	.08570	-.00530	.02970	.24530	.02090	.00520	-.00190
2.499	-1.860	-.16110	.29010	.05960	-.00790	.02290	.24340	.06370	.01530	-.00200
2.499	.190	-.07040	.28820	.03460	-.01040	.01540	.24190	.09980	.02720	-.00210
2.499	2.180	.01680	.28510	.01010	-.01380	.00600	.23920	.12610	.03830	-.00250
2.499	4.230	.10750	.28280	-.01770	-.01770	-.00520	.23770	.16130	.05180	-.00380
2.499	6.230	.20310	.28160	-.05080	-.02290	-.01280	.23820	.20490	.06680	-.00520
2.499	8.200	.30960	.28100	-.08820	-.03100	-.01790	.23940	.24470	.08360	-.00800
	GRADIENT	.04481	-.00124	-.01270	-.00152	-.00430	-.00096	.01700	.00576	-.00021

AMES 87-710 IA12C O1 T1 S1 (RBZ032) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 GIMBAL = 1.000
RUDDER = .000

RUN NO. 32/ 0 RN/L = 4.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01460	-.00060	.27850	-.10440	.03980	.23890	.17680	.05810	-.00570
2.499	-6.240	-.01390	.00160	.23470	-.08720	.03400	.23700	.16690	.05260	-.00640
2.499	-4.180	-.00860	.00820	.14830	-.05480	.02020	.23990	.12850	.04020	-.00560
2.499	-2.120	-.00730	.01480	.07030	-.02670	.00970	.24010	.09500	.03400	-.00380
2.499	-.070	-.00400	.01620	-.00680	.00000	-.00050	.24010	.08310	.02640	-.00210
2.499	1.990	-.00100	.01950	-.08280	.02700	-.01110	.23830	.04970	.01950	.00010
2.499	4.050	-.00070	.01920	-.16080	.05590	-.02240	.23640	.03490	.01670	.00140
2.499	6.100	-.00040	.01830	-.24690	.08810	-.03490	.23670	.01490	.01280	-.00010
2.499	7.140	-.00120	.01800	-.29130	.10460	-.04110	.23770	.00810	.01090	-.00110
	GRADIENT	.00107	.00130	-.03790	.01337	-.00515	-.00043	-.01130	-.00299	.00087

AMES 87-710 IA12C C1 T1 S1 (RBZ033) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CFR = 31.260
SRMPR = .916 GIMBAL = 1.000
RUDDER = .000

RUN NO. 33/ 0 RN/L = 2.38 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01370	-.00560	.26360	-.09050	.03630	.23100	.17780	.05820	-.00720
2.499	-6.240	-.01210	-.00470	.21880	-.07460	.03040	.22960	.16460	.05250	-.00740
2.499	-4.180	-.00740	.00280	.13900	-.04770	.01880	.22940	.12230	.03990	-.00630
2.499	-2.120	-.00630	.00360	.06300	-.02200	.00920	.22830	.10840	.03460	-.00430
2.499	-.060	-.00270	.00470	-.00950	.00120	-.00170	.22720	.09010	.02830	-.00210
2.499	2.000	-.00090	-.00380	-.08430	.02670	-.01140	.22920	.06750	.02500	-.00210
2.499	4.050	-.00220	-.00790	-.15680	.05130	-.02200	.22940	.06890	.02490	-.00390
2.499	6.110	-.00460	-.01040	-.23840	.07900	-.03280	.22790	.06800	.02500	-.00560
2.499	7.140	-.00530	-.00940	-.28420	.09630	-.03920	.22930	.05660	.02470	-.00650
	GRADIENT	.00077	-.00140	-.03590	.01199	-.00497	.00004	-.00722	-.00196	.00038

AMES 87-710 IA12C C1 T1 S1 (RBZ034) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CFR = 31.260
SRMPR = .916 GIMBAL = 1.000
RUDDER = .000

RUN NO. 34/ 0 RN/L = 2.41 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.880	-.46480	.24640	.14970	.01190	.02950	.24310	-.04070	-.01480	-.00330
2.499	-5.860	-.34740	.23920	.10800	.00860	.02250	.23550	-.01230	-.00450	-.00330
2.499	-3.870	-.23670	.23440	.07020	.00570	.01670	.23170	.02250	.00640	-.00330
2.499	-1.880	-.13770	.23200	.04110	.00250	.01120	.22920	.05700	.01800	-.00290
2.499	.130	-.04930	.22690	.01670	-.00110	.00460	.22630	.08900	.02970	-.00260
2.499	2.120	.03590	.22100	-.00570	-.00460	-.00330	.22260	.11760	.04010	-.00290
2.499	4.110	.12300	.21860	-.03040	-.00890	-.00950	.22080	.15100	.05250	-.00370
2.499	6.150	.21890	.21920	-.06190	-.01440	-.01610	.22380	.18930	.06740	-.00520
2.499	8.170	.32200	.22000	-.09580	-.02200	-.02020	.22560	.23340	.08370	-.00800
	GRADIENT	.04474	-.00213	-.01242	-.00182	-.00335	-.00142	.01591	.00573	-.00004

AMES 87-710 IA12C C1 T1 S1 (RBZ035) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CPR = 14.720
SRMPR = .429 GIMBAL = 1.000
RUDDER = .000

RUN NO. 35/ 0 RN/L = 2.97 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.860	-.46010	.27670	.15150	.01210	.04070	.24590	-.04610	-.01520	-.00270
2.499	-5.860	-.34660	.26890	.11320	.00870	.03410	.24030	-.01910	-.00490	-.00280
2.499	-3.860	-.23560	.26200	.07690	.00560	.02720	.23510	.01100	.00610	-.00300
2.499	-1.860	-.14100	.25910	.05040	.00230	.02090	.23190	.05270	.01640	-.00280
2.499	.160	-.05180	.25700	.02740	-.00130	.01420	.23100	.08540	.02820	-.00270
2.499	2.150	.03200	.25440	.00460	-.00460	.00550	.22940	.11890	.03860	-.00310
2.499	4.160	.11900	.25340	-.02100	-.00870	-.00460	.22940	.15210	.05130	-.00420
2.499	6.170	.21640	.25300	-.05310	-.01460	-.01220	.22910	.19070	.06660	-.00570
2.499	8.190	.32350	.25340	-.09030	-.02260	-.01740	.23060	.23060	.09260	-.00840
	GRADIENT	.04400	-.00109	-.01201	-.00177	-.00394	-.00069	.01738	.00562	-.00013

AMES 87-710 IA12C C1 T1 S1 (RBZ036) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 14.720
SRMPR = .429 GIMBAL = 1.000
RUDDER = .000

RUN NO. 36/ 0 RN/L = 2.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.00910	-.00140	.28090	-.10340	.03920	.23270	.16120	.05790	-.00670
2.499	-6.240	-.00850	.00080	.23570	-.08640	.03310	.22900	.15890	.05280	-.00710
2.499	-4.180	-.00350	.00790	.15010	-.05540	.02050	.23170	.11530	.04010	-.00630
2.499	-2.120	-.00230	.01300	.07280	-.02840	.00940	.23240	.08780	.03420	-.00450
2.499	-.070	.00090	.01470	-.00510	.00050	-.00090	.23130	.07470	.02720	-.00250
2.499	1.990	.00320	.01370	-.08420	.03000	-.01090	.23120	.04320	.02070	-.00100
2.499	4.050	.00310	.00850	-.16180	.05860	-.02250	.23050	.03530	.01940	-.00090
2.499	6.100	.00310	.00680	-.24500	.08820	-.03460	.22830	.02480	.01620	-.00240
2.499	7.130	.00250	.00530	-.29320	.10650	-.04130	.23070	.02150	.01420	-.00380
	GRADIENT	.00091	.00009	-.03796	.01392	-.00517	-.00017	-.00995	-.00267	.00070

AMES 87-710 IA12C C1 T1 S1   (RBZ037) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP = 953.0000 IN.
LREF = 1328.0000 IN.   YMRP = .0000 IN.
BREF = 1328.0000 IN.   ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000   MPSRA = .000
POWER = .000   GIMBAL = 1.000
RUDDER = .000

RUN NO. 37/ 0   RN/L = 3.93   GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.860	-.46310	.30020	.15800	.01360	.04380	.24940	-.04490	-.01550	-.00250
2.499	-5.850	-.34810	.29400	.11940	.01020	.03690	.24440	-.01800	-.00490	-.00260
2.499	-3.810	-.24010	.28880	.08490	.00690	.03010	.24000	.01090	.00620	-.00270
2.499	-1.820	-.14400	.28560	.05810	.00370	.02300	.23700	.04840	.01630	-.00290
2.499	.180	-.05590	.28400	.03440	-.00010	.01570	.23530	.08200	.02790	-.00290
2.499	2.150	.03000	.28080	.01040	-.00370	.00650	.23390	.11340	.03820	-.00320
2.499	4.180	.11960	.27880	-.01750	-.00790	-.00420	.23240	.14940	.05090	-.00440
2.499	6.190	.21870	.27780	-.05140	-.01380	-.01200	.23330	.19060	.06620	-.00580
2.499	7.180	.27060	.27730	-.06930	-.01820	-.01520	.23390	.21800	.07440	-.00710
	GRADIENT	.04478	-.00124	-.01266	-.00185	-.00427	-.00094	.01714	.00558	-.00019

AMES 87-710 IA12C C1 T1 S1   (RBZ038) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.   XMRP = 953.0000 IN.
LREF = 1328.0000 IN.   YMRP = .0000 IN.
BREF = 1328.0000 IN.   ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000   MPSRA = .000
POWER = .000   GIMBAL = 1.000
RUDDER = .000

RUN NO. 38/ 0   RN/L = 3.10   GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.890	-.41830	.27160	.14110	.00880	.02690	.23840	-.02280	-.00720	-.00650
3.002	-5.900	-.32200	.26340	.11140	.00650	.02200	.23120	-.00720	-.00090	-.00660
3.002	-3.880	-.22310	.25650	.08020	.00440	.01640	.22480	.03020	.00730	-.00690
3.002	-1.880	-.13580	.25240	.05690	.00210	.01040	.22090	.04680	.01580	-.00650
3.002	.140	-.05690	.24860	.03820	-.00040	.00510	.21820	.07070	.02300	-.00680
3.002	2.140	.02060	.24520	.01800	-.00240	.00150	.21510	.09210	.03060	-.00800
3.002	4.130	.10150	.24210	-.00550	-.00580	-.00410	.21190	.11270	.03870	-.00800
3.002	6.150	.18620	.24010	-.02950	-.00880	-.00820	.21130	.13000	.04820	-.00690
3.002	8.150	.26850	.23610	-.05240	-.01230	-.01100	.20820	.14380	.05560	-.00830
	GRADIENT	.04020	-.00180	-.01049	-.00124	-.00249	-.00158	.01049	.00387	.00007

AMES 87-710 IA12C C1 T1 S1 (RBZ039) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 GIMBAL = 1.000
RUDDER = .000

RUN NO. 39/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.00850	-.00550	.26500	-.09580	.03640	.22260	.16430	.04960	-.01070
3.002	-6.250	-.00790	-.00580	.22450	-.08140	.03100	.22030	.12770	.04530	-.01000
3.002	-4.150	-.00370	-.00200	.14200	-.05030	.01950	.21840	.10840	.03590	-.01020
3.002	-2.080	-.00210	.00280	.06570	-.02300	.00890	.21780	.08530	.02910	-.00830
3.002	.030	.00030	.00470	-.01010	.00240	-.00070	.21740	.06630	.02210	-.00620
3.002	2.130	.00190	.01080	-.08280	.02610	-.01040	.21810	.03300	.01830	-.00290
3.002	4.210	.00290	.01410	-.15770	.05390	-.02120	.21790	.02790	.01240	-.00190
3.002	6.310	.00330	.01270	-.23910	.08500	-.03260	.21780	.00590	.00900	-.00240
3.002	7.350	.00430	.01120	-.28150	.10030	-.03780	.21970	.00620	.00850	-.00170
	GRADIENT	.00082	.00192	-.03577	.01231	-.00482	-.00007	-.01021	-.00276	.00105

AMES 87-710 IA12C C1 T1 S1 (RBZ040) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 26.860
SRMPR = .768 GIMBAL = 1.000
RUDDER = .000

RUN NO. 40/ 0 RN/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.280	-.00950	-.00730	.25020	-.08300	.03420	.21210	.15290	.04970	-.01130
3.002	-6.240	-.00820	-.00700	.20530	-.06750	.02740	.21110	.12430	.04560	-.01070
3.002	-4.150	-.00470	-.00580	.13470	-.04340	.01810	.20790	.09820	.03670	-.01030
3.002	-2.080	-.00250	-.00270	.05630	-.01650	.00790	.20680	.08790	.03080	-.00790
3.002	.030	.00000	-.00160	-.01240	.00320	-.00060	.20600	.07300	.02620	-.00510
3.002	2.120	.00180	-.00840	-.08180	.02360	-.01020	.20810	.06310	.02470	-.00430
3.002	4.210	.00150	-.01140	-.15680	.04970	-.02140	.20900	.06570	.02090	-.00570
3.002	6.310	.00030	-.01140	-.23090	.07680	-.03110	.21200	.05540	.02050	-.00640
3.002	7.350	.00000	-.01030	-.27000	.09010	-.03710	.21210	.05330	.01850	-.00590
	GRADIENT	.00080	-.00081	-.03450	.01083	-.00465	.00018	-.00428	-.00180	.00061

AMES 87-710 IA12C O1 T1 S1 (RBZ041) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CFR = 26.860
SRMFR = .768 GIMBAL = 1.000
RUDDER = .000

RUN NO. 41/ 0 RN/L = 1.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.890	-.41610	.22370	.13120	.00720	.01840	.22510	-.02120	-.00730	-.00680
3.002	-5.920	-.31690	.21480	.09860	.00490	.01180	.21900	.00350	.00050	-.00680
3.002	-3.900	-.21620	.20480	.06540	.00300	.00560	.21300	.02380	.00950	-.00620
3.002	-1.920	-.12840	.19970	.03970	.00070	.00110	.20860	.05250	.01810	-.00550
3.002	.090	-.04800	.19720	.01990	-.00190	-.00210	.20640	.07790	.02680	-.00520
3.002	2.090	.03180	.19000	.00130	-.00420	-.00400	.20050	.09160	.03390	-.00420
3.002	4.110	.10900	.18340	-.01930	-.00680	-.00920	.19650	.11680	.04190	-.00420
3.002	6.080	.19300	.18120	-.04450	-.01040	-.01290	[illegible]	.13540	.05160	-.00520
3.002	8.100	.27690	.17780	-.06860	-.01370	-.01640	[illegible]	.15040	.05950	-.00680
	GRADIENT	.04047	-.00262	-.01037	-.00122	-.00173	[illegible]	.01124	.00402	.00026

AMES 87-710 IA12C O1 T1 S1 (RBZ042) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CFR = 14.400
SRMFR = .412 GIMBAL = 1.000
RUDDER = .000

RUN NO. 42/ 0 RN/L = 2.30 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-8.190	-.41340	.24430	.13390	.00540	.02450	.23130	-.03020	-.00730	-.00650
3.002	-5.890	-.32050	.23440	.10280	.00270	.01910	.22230	-.00310	-.00040	-.00650
3.002	-3.880	-.22130	.22540	.07020	.00050	.01330	.21560	.02750	.00830	-.00630
3.002	-1.870	-.13230	.22210	.04490	-.00180	.00820	.21200	.05070	.01630	-.00590
3.002	.110	-.05560	.21550	.02790	-.00440	.00320	.20670	.06980	.02460	-.00600
3.002	2.100	.02050	.21090	.00900	-.00680	-.00030	.20460	.08900	.03200	-.00510
3.002	4.120	.10310	.20800	-.01380	-.01020	-.00600	.20210	.11060	.04000	-.00530
3.002	6.120	.18120	.20680	-.03480	-.01330	-.00930	.20040	.12910	.04860	-.00620
3.002	8.080	.28260	.20500	-.05710	-.01660	-.01160	.19980	.14730	.05600	-.00760
	GRADIENT	.04014	-.00230	-.01021	-.00132	-.00236	-.00172	.01024	.00396	.00014

AMES 87-710 IA12C O1 T1 S1 (RBZ043) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 14.400
SRMPR = .412 GIMBAL = 1.000
RUDDER = .000

RUN NO. 43/ 0 RN/L = 2.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.01310	-.00680	.25680	-.08910	.03550	.21250	.16580	.04960	-.01070
3.002	-6.240	-.01160	-.00660	.21540	-.07530	.03050	.21210	.12620	.04530	-.01030
3.002	-4.150	-.00830	-.00320	.14090	-.04940	.01960	.20780	.09740	.03660	-.00990
3.002	-2.060	-.00680	-.00070	.06310	-.02150	.00980	.20890	.08830	.03010	-.00800
3.002	.030	-.00470	.00300	-.00950	.00280	.00000	.20850	.05840	.02390	-.00570
3.002	2.120	-.00330	.00190	-.08450	.02740	-.01020	.20880	.04240	.02080	-.00300
3.002	4.210	-.00190	-.00150	-.15960	.05510	-.02170	.20910	.04720	.01530	-.00390
3.002	6.310	-.00300	-.00590	-.23930	.08360	-.03220	.20990	.03340	.01400	-.00550
3.002	7.350	-.00250	-.00580	-.28210	.09890	-.03810	.21190	.03200	.01350	-.00490
	GRADIENT	.00078	.00029	-.03582	.01234	-.00490	.00012	-.00700	-.00248	.00081

AMES 87-710 IA12C O1 T1 S1 (RBZ044) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 41.000
SRMPR = 1.150 GIMBAL = 1.000
RUDDER = .000

RUN NO. 44/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.00940	-.00880	.24460	-.07840	.03310	.21200	.15920	.04980	-.01140
3.002	-6.250	-.00830	-.00770	.19740	-.06200	.02820	.20720	.12880	.04560	-.01090
3.002	-4.150	-.00540	-.00900	.12320	-.03700	.01710	.20550	.10830	.03750	-.01050
3.002	-2.060	-.00300	-.00390	.04910	-.01260	.00640	.20240	.09620	.03190	-.00730
3.002	.040	-.00010	-.00650	-.01370	.00290	-.00060	.20190	.07740	.02880	-.00490
3.002	2.130	.00130	-.00950	-.07800	.01990	-.00950	.20250	.07600	.02700	-.00380
3.002	4.210	.00030	-.01060	-.15000	.04400	-.02010	.20510	.05060	.02680	-.00370
3.002	6.310	-.00100	-.00970	-.22630	.07230	-.03030	.20860	.06640	.02210	-.00470
3.002	7.350	-.00240	-.00960	-.26340	.08390	-.03620	.21350	.08060	.02220	-.00450
	GRADIENT	.00075	-.00042	-.03221	.00930	-.00432	-.00003	-.00648	-.00124	.00082

AMES 87-710 IA12C O1 T1 S1 (RBZ045) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CPR = 41.000
SRMPR = 1.150 GIMBAL = 1.000
RUDDER = .000

RUN NO. 45/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.940	-.40720	.21120	.12060	.00780	.00810	.22680	-.02190	-.00680	-.00810
3.002	-6.940	-.35850	.20290	.10580	.00660	.00490	.21900	-.01280	-.00250	-.00790
3.002	-5.900	-.30660	.19790	.08810	.00590	.00190	.21590	.00090	.00160	-.00770
3.002	-3.920	-.20870	.18670	.05680	.00390	-.00240	.20880	.03210	.01100	-.00680
3.002	-1.980	-.11750	.18250	.02950	.00190	-.00640	.20590	.05540	.02050	-.00580
3.002	.070	-.04080	.18380	.01380	-.00010	-.00550	.20220	.07480	.02880	-.00510
3.002	2.080	.03280	.17510	-.00300	-.00080	-.00560	.19620	.09230	.03460	-.00320
3.002	4.070	.11130	.17210	-.02290	-.00250	-.00980	.19560	.11430	.04190	-.00300
3.002	6.060	.19450	.16720	-.04760	-.00710	-.01570	.19140	.14000	.05300	-.00470
3.002	8.050	.28220	.16500	-.07550	-.00950	-.01950	.19050	.15450	.06040	-.00600
	GRADIENT	.03951	-.00183	-.00959	-.00076	-.00068	-.00180	.01006	.00379	.00049

AMES 87-710 IA12C O1 T1 S1 (RBZ046) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = .000 GIMBAL = 1.000
RUDDER = .000

RUN NO. 46/ 0 RN/L = 2.39 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.750	-.39590	.24620	.12950	-.00320	.01310	.22730	-.00260	-.00510	-.00980
3.499	-5.750	-.30830	.23530	.10490	-.00520	.00990	.21680	.00800	.00190	-.00980
3.499	-3.740	-.22340	.22700	.08130	-.00730	.00600	.20830	.01730	.00820	-.00940
3.499	-1.740	-.14320	.22240	.06040	-.00940	.00240	.20510	.03870	.01410	-.00930
3.499	.270	-.07190	.21740	.04460	-.01250	-.00160	.19940	.05390	.01990	-.00940
3.499	2.270	.00340	.21420	.02540	-.01370	-.00420	.19680	.07030	.02580	-.00840
3.499	4.260	.07570	.21110	.00640	-.01560	-.00640	.19350	.08430	.03120	-.00750
3.499	6.260	.14600	.20710	-.01340	-.01890	-.00930	.19080	.09640	.03810	-.00820
3.499	8.280	.22210	.20470	-.03840	-.02250	-.00850	.18960	.12480	.04590	-.00840
	GRADIENT	.03722	-.00200	-.00924	-.00104	-.00157	-.00190	.00828	.00288	.00023

AMES 87-710 IA12C OI T1 S1 (RBZ047) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = .000 GIMCAL = 1.000
RUDDER = .000

RUN NO. 47/ 0 RN/L = 2.40 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02040	-.01340	.24610	-.08850	.03410	.20840	.11000	.03840	-.01380
3.499	-6.570	-.01850	-.01170	.20670	-.07430	.02670	.20340	.09890	.03400	-.01340
3.499	-4.380	-.01560	-.00740	.12590	-.04510	.01830	.20250	.07090	.02850	-.01110
3.499	-2.200	-.01450	-.00510	.05160	-.01710	.00830	.20110	.05920	.02380	-.01200
3.499	-.010	-.01310	-.00220	-.01780	.00660	-.00050	.19980	.04010	.01960	-.00920
3.499	2.170	-.01140	.00310	-.08550	.02920	-.00940	.20020	.02910	.01650	-.00560
3.499	4.350	-.00990	.00600	-.16120	.05620	-.01870	.19970	.02780	.01290	-.00310
3.499	6.540	-.00840	.00520	-.24080	.08530	-.03070	.20090	.01700	.00700	-.00320
3.499	7.630	-.00840	.00440	-.27920	.09820	-.03570	.20260	.00890	.00550	-.00370
	GRADIENT	.00066	.00160	-.03258	.01140	-.00420	-.00030	-.00535	-.00176	.00103

AMES 87-710 IA12C OI T1 S1 (RBZ048) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 13.170
SRMPR = .456 GIMCAL = 1.000
RUDDER = .000

RUN NO. 48/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02690	-.01380	.22820	-.07610	.03330	.19750	.11240	.03830	-.01370
3.499	-6.560	-.02560	-.01220	.19150	-.06360	.02660	.19650	.10300	.03460	-.01320
3.499	-4.380	-.02230	-.00890	.11920	-.03950	.01810	.19480	.08030	.02890	-.01100
3.499	-2.200	-.02110	-.00790	.04520	-.01370	.00680	.19270	.07420	.02470	-.01110
3.499	-.020	-.02000	-.00560	-.01970	.00720	.00110	.19000	.07470	.02150	-.00780
3.499	2.170	-.01790	-.00920	-.09350	.03160	-.01120	.19170	.06330	.02070	-.00540
3.499	4.380	-.01580	-.01280	-.16270	.05530	-.02060	.19270	.05050	.01420	-.00520
3.499	6.540	-.01500	-.01080	-.23770	.08070	-.02920	.19610	.03580	.01050	-.00460
3.499	7.630	-.01440	-.00250	-.27300	.09210	-.03450	.19620	.03310	.00770	-.00440
	GRADIENT	.00074	-.00042	-.03215	.01075	-.00436	-.00024	-.00323	-.00153	.00079

AMES 87-710 IA12C OL T1 S1 (RBZ049) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP = 953.0000 IN.
LREF = 1328.0000 IN.	YMRP = .0000 IN.
BREF = 1328.0000 IN.	ZMRP = 400.0000 IN.
SCALE = .0190	

PARAMETRIC DATA

BETA =	.000	MPSRA =	.000
POWER =	1.000	CPR =	13.170
SRMPR =	.456	GIMBAL =	1.000
RUDDER =	.000		

RUN NO. 49/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.770	-.40470	.21120	.11840	-.01350	.00740	.21760	-.01760	-.00470	-.01000
3.499	-5.750	-.31740	.19780	.09540	-.01510	.00220	.20610	.00800	.00300	-.00980
3.499	-3.750	-.23130	.18980	.07020	-.01640	-.00170	.19990	.02860	.00920	-.00910
3.499	-1.750	-.14550	.18400	.04640	-.01800	-.00440	.19470	.05420	.01550	-.00850
3.499	.230	-.07210	.18080	.03010	-.02020	-.00660	.19010	.07040	.02230	-.00800
3.499	2.240	-.00110	.17310	.01350	-.02140	-.00790	.18450	.09300	.02850	-.00640
3.499	4.250	.06790	.16950	-.00360	-.02260	-.01000	.18330	.10070	.03400	-.00550
3.499	6.230	.13450	.1 300	-.02210	-.02560	-.01440	.17990	.11080	.04010	-.00660
3.499	8.240	.21620	.16290	-.04950	-.02850	-.01810	.18020	.13680	.04810	-.00760
	GRADIENT	.03716	-.00256	-.00903	-.00079	-.00101	-.00217	.00915	.00313	.00045

AMES 87-710 IA12C C T1 S1 (RBZ050) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.	XMRP = 953.0000 IN.
LREF = 1328.0000 IN.	YMRP = .0000 IN.
BREF = 1328.0000 IN.	ZMRP = 400.0000 IN.
SCALE = .0190	

PARAMETRIC DATA

BETA =	.000	MPSRA =	.000
POWER =	1.000	CPR =	23.860
SRMPR =	.826	GIMBAL =	1.000
RUDDER =	.000		

RUN NO. 50/ 0 RN/L = 1.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.750	-.38800	.19550	.10420	-.01170	-.00440	.21630	.00460	-.00370	-.01090
3.499	-5.770	-.30320	.18070	.07980	-.01260	-.00600	.20350	.01800	.00370	-.01000
3.499	-3.760	-.22250	.17320	.05920	-.01350	-.00570	.19520	.03650	.01050	-.00850
3.499	-1.760	-.13640	.16520	.03360	-.01490	-.00870	.18880	.06100	.01820	-.00770
3.499	.250	-.06330	.16330	.01710	-.01650	.01010	.18670	.08010	.02560	-.00720
3.499	2.220	.00530	.15660	.00530	-.01300	-.00730	.18000	.08540	.02800	-.00400
3.499	4.240	.07400	.15170	-.00960	-.01330	-.01110	.17480	.09820	.03110	-.00270
3.499	6.210	.13900	.14900	-.02610	-.01390	-.01810	.17200	.10960	.03680	-.00430
3.499	8.230	.22260	.14740	-.05820	-.02060	-.02470	.17380	.14150	.04860	-.00650
	GRADIENT	.03677	-.00258	-.00830	.00011	-.00047	-.00248	.00740	.00255	.00077

AMES 87-710 IA12 C1 T1 S1 (RBZ051) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 23.880
SRMPR = .826 GIMBAL = 1.000
RUDDER = .000

RUN NO. 51/ 0 RN/L = 1.46 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02290	-.01460	.21130	-.08210	.03070	.19360	.10690	.03980	-.01340
3.499	-6.570	-.02040	-.01400	.17410	-.05010	.02500	.19160	.08570	.03560	-.01370
3.499	-4.390	-.01700	-.01390	.11650	-.03410	.01680	.19210	.07220	.03020	-.01230
3.499	-2.200	-.01560	-.00910	.03800	-.00800	.00550	.18780	.05770	.02670	-.01090
3.499	-.010	-.01290	-.01030	-.01470	.00530	.00030	.18670	.05530	.02590	-.00740
3.499	2.170	-.00760	-.01200	-.08020	.02350	-.00930	.18710	.05030	.01930	-.00340
3.499	4.350	-.00780	-.01500	-.15100	.04660	-.01770	.18950	.05440	.01750	-.00260
3.499	6.540	-.01000	-.00710	-.21740	.06440	-.02560	.19200	.01840	.00910	-.00230
3.499	7.630	-.01010	-.00680	-.25630	.07780	-.03320	.19290	.01080	.00670	-.00300
	GRADIENT	.00121	-.00023	-.02989	.00883	-.00384	-.00027	-.00197	-.00150	.00123

AMES 87-710 IA12C C1 T1 S1 (RBZ052) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 MPSRA = .000
POWER = 1.000 CPR = 41.000
SRMPR = 1.150 GIMBAL = 1.000
RUDDER = .000

RUN NO. 52/ 0 RN/L = 1.35 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02460	-.01650	.20140	-.05480	.02850	.19220	.12040	.03960	-.01430
3.499	-6.570	-.02360	-.01610	.16110	-.04070	.02370	.18970	.11770	.03500	-.01360
3.499	-4.390	-.02500	-.01470	.09430	-.02070	.01370	.18850	.09730	.03160	-.01200
3.499	-2.200	-.02320	-.01120	.03760	-.00710	.00550	.18500	.08310	.02870	-.00920
3.499	-.010	-.01580	-.01280	-.01190	.00220	-.00010	.18350	.06770	.02060	-.00340
3.499	2.170	-.01610	-.01380	-.07490	.01820	-.00920	.18470	.05830	.01520	-.00190
3.499	4.350	-.01840	-.01450	-.13580	.03430	-.01750	.18740	.06220	.01450	-.00090
3.499	6.540	-.02480	-.00880	-.20330	.05410	-.02430	.18890	.04880	.01460	-.00200
3.499	7.630	-.02740	-.01010	-.23950	.06400	-.03040	.19000	.05230	.01490	-.00360
	GRADIENT	.00093	-.00010	-.02621	.00619	-.00352	-.00012	-.00435	-.00218	.00143

AMES 87-710 IA12C C4 T1 S1 (RBZ053) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 MPSRA = .000
POWER = 1.000 CFR = 41.000
SRMPR = 1.150 GIMBAL = 1.000
RUDDER = .000

RUN NO. 53/ 0 RN/L = 1.38 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.790	-.36890	.18480	.08470	-.00800	-.00970	.21330	-.01400	-.00280	-.01200
3.499	-5.800	-.30330	.17270	.07510	-.00850	-.00590	.20200	.00690	.00370	-.00970
3.499	-3.790	-.21880	.16070	.05160	-.00990	-.01100	.19130	.02580	.01280	-.00860
3.499	-1.790	-.13110	.15730	.02600	-.00840	-.01150	.18930	.05160	.01830	-.00610
3.499	.250	-.05950	.00000	.05510	-.00860	-.01050	.00000	.06430	.02380	-.00500
3.499	2.200	.00480	.14720	.00180	-.00780	-.01310	.17750	.07170	.02640	-.00270
3.499	4.200	.07120	.14330	-.01270	-.00790	-.01710	.17900	.11140	.02890	-.00190
3.499	6.200	.14220	.13970	-.03180	-.01170	-.02330	.16880	.10270	.03520	-.00340
3.499	3.210	.22030	.14000	-.06080	-.01680	-.03020	.17150	.14090	.04730	-.00630
	GRADIENT	.03599	-.00237	-.00765	.00022	-.00169	-.00251	.00962	.00205	.00084

AMES 87-710 IA12C C4 T1 S1 (RBZ054) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 54/ 0 RN/L = 3.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.880	-.47650	.30490	.15770	-.00200	.04380	.25330	-.02990	-.01630	-.00090
2.499	-5.850	-.36310	.29760	.11970	-.00420	.03690	.24950	-.00710	-.00560	-.00100
2.499	-3.860	-.25600	.29230	.08600	-.00640	.03030	.24450	.02910	.00510	-.00130
2.499	-1.840	-.16000	.29020	.05870	-.00850	.02310	.24390	.06970	.01570	-.00150
2.499	.160	-.07250	.28830	.03510	-.01150	.01590	.24190	.10050	.02720	-.00160
2.499	2.190	.01620	.28470	.01000	-.01460	.00640	.23890	.12890	.03840	-.00200
2.499	4.180	.10590	.00000	-.01570	-.01790	-.00440	.00000	.16240	.05160	-.00320
2.499	6.170	.20400	.28100	-.05170	-.02350	-.01220	.23790	.20590	.06740	-.00470
2.499	8.190	.30960	.28080	-.08850	-.03160	-.01730	.23930	.24440	.08410	-.00740
	GRADIENT	.04475	-.02929	-.01254	-.00145	-.00428	-.02452	.01620	.00575	-.00021

AMES 87-710 IA12C OL T1 S1 (RBZ055) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 55/ 0 RN/L = 3.88 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.01530	-.00010	.28480	-.10980	.04210	.24120	.17930	.05830	-.00520
2.499	-6.240	-.01480	.00200	.23900	-.09230	.03540	.23950	.16610	.05270	-.00590
2.499	-4.900	-.00910	.00850	.15510	-.06040	.02290	.24060	.12240	.04110	-.00510
2.499	-2.440	-.00780	.01590	.07430	-.03180	.01130	.24010	.09360	.03410	-.00390
2.499	-.380	-.00420	.01670	.00100	-.00690	.00190	.24110	.08290	.02660	-.00180
2.499	1.670	-.00100	.02010	-.07690	.02070	-.00940	.23990	.05140	.01950	.00040
2.499	3.730	-.00090	.02010	-.15560	.04980	-.02040	.23630	.02800	.01700	.00190
2.499	5.790	-.00040	.01900	-.24090	.08240	-.03290	.23590	.01700	.01270	.00020
2.499	6.810	-.00120	.01870	-.28950	.10110	-.03940	.23820	.01370	.01100	-.00080
	GRADIENT	.00113	.00135	-.03756	.01327	-.00522	-.00045	-.01123	-.00305	.00047

AMES 87-710 IA12C OL T1 S1 (RBZ056) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CFR = 31.280 SRMFR = .916
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 56/ 0 RN/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.590	-.01390	-.00340	.27080	-.09890	.03780	.23210	.17510	.05880	-.00600
2.499	-6.560	-.01190	-.00450	.22580	-.08080	.03260	.22980	.16690	.05310	-.00710
2.499	-4.900	-.00680	.00270	.14480	-.05340	.02200	.23010	.12540	.04030	-.00600
2.499	-2.440	-.00550	.00360	.07160	-.02920	.01170	.22890	.10730	.03500	-.00420
2.499	-.380	-.00200	.00490	-.00360	-.00490	.00170	.22870	.08530	.02860	-.00180
2.499	1.680	-.00010	-.00400	-.07790	.02070	-.00880	.22970	.06790	.02540	-.00170
2.499	3.730	-.00160	-.00730	-.15310	.04640	-.02030	.22990	.06460	.02470	-.00320
2.499	5.790	-.00410	-.01020	-.23180	.07350	-.03060	.22790	.07060	.02590	-.00540
2.499	6.810	-.00490	-.00940	-.27980	.09130	-.03710	.23000	.08010	.02580	-.00630
	GRADIENT	.00077	-.00134	-.03621	.01212	-.00511	.00002	-.00744	-.00200	.00039

AMES 87-710 IA12C C4 T1 S1 (RBZ057) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 57/ 0 RN/L = 2.36 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.890	-.46317	.25000	.14890	.01130	.02980	.24160	-.03760	-.01460	-.00280
2.499	-5.880	-.34440	.24040	.10660	.00820	.02280	.23770	-.01570	-.00410	-.00290
2.499	-3.850	-.23530	.23440	.06970	.00540	.01680	.23300	.02230	.00670	-.00290
2.499	-1.870	-.20390	.23150	.07030	.00220	.01090	.22980	.05760	.01830	-.00290
2.499	.140	-.04390	.22780	.01530	-.00150	.00390	.22730	.09420	.03010	-.0027
2.499	2.130	.03870	.21960	-.00650	-.00500	-.00440	.22340	.12380	.04030	-.002
2.499	4.140	.12690	.21900	-.03160	-.00920	-.00990	.22190	.15790	.05310	-.00340
2.499	6.130	.22080	.21820	-.06280	-.01490	-.01690	.22400	.19520	.06790	-.00480
2.499	8.160	.32530	.21930	-.09680	-.02270	-.02040	.22690	.23710	.08400	-.00760
	GRADIENT	.04841	-.00214	-.01399	-.00182	-.00344	-.00143	.01685	.00575	-.00006

AMES 87-710 IA12C C4 T1 S1 (RBZ059) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 59/ 0 RN/L = 3.11 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.890	-.43190	.27620	.13910	-.01580	.02510	.24510	.01030	-.00760	-.00360
3.002	-5.880	-.33530	.26850	.10880	-.01720	.02000	.23700	.02440	-.00090	-.00380
3.002	-3.860	-.23810	.26040	.07860	-.01850	.01400	.22890	.05830	.00680	-.00400
3.002	-1.850	-.15410	.25570	.05560	-.01960	.00810	.22490	.07670	.01500	-.00400
3.002	.130	-.07510	.25340	.03680	-.02130	.00270	.22320	.09550	.02280	-.00440
3.002	2.150	.00250	.24840	.01690	-.02260	-.00090	.21890	.11830	.03040	-.00350
3.002	4.160	.08640	.24610	-.00740	-.02520	-.00640	.21680	.13870	.03490	-.00370
3.002	6.160	.16480	.24320	-.03020	-.02700	-.01050	.21450	.15480	.04440	-.00450
3.002	8.130	.24760	.23190	-.05260	-.02970	-.01360	.20470	.17300	.05550	-.00590
	GRADIENT	.04020	-.00179	-.01051	-.00082	-.00248	-.00151	.01010	.00399	.00006

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AMES 87-710 IA12C C4 T1 S1 (RBZ060) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 60/ 0 RN/L = 3.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02360	-.00680	.26630	-.10000	.03890	.22680	.18130	.04970	-.00880
3.002	-6.240	-.02180	-.00690	.22550	-.08580	.03310	.22360	.15040	.04560	-.00800
3.002	-4.150	-.01770	-.00300	.14700	-.05540	.02210	.22290	.11960	.03610	-.00850
3.002	-2.060	-.01580	.00190	.06960	-.02750	.01100	.22450	.10620	.02940	-.00650
3.002	.040	-.01300	.00360	-.00460	-.00320	.00040	.22340	.08580	.02240	-.00470
3.002	2.120	-.01120	.01030	-.07820	.02010	-.00920	.22290	.05200	.01820	-.00130
3.002	4.210	-.00970	.01470	-.15630	.04860	-.01940	.22160	.04540	.01360	.00040
3.002	6.310	-.00870	.01130	-.23540	.08010	-.03100	.22190	.03130	.00880	-.00060
3.002	7.350	-.00780	.00990	-.27730	.09520	-.03790	.22380	.02520	.00850	.00030
	GRADIENT	.00099	.00210	-.03610	.01223	-.00494	-.00022	-.00969	-.00269	.00110

AMES 87-710 IA12C C4 T1 S1 (RBZ061) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 61/ 0 RN/L = 1.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.01750	-.00780	.25580	-.08930	.03650	.21780	.16740	.05000	-.01000
3.002	-6.240	-.01690	-.00750	.21240	-.07450	.03100	.21570	.13920	.04640	-.00930
3.002	-4.150	-.01380	-.00620	.13550	-.04780	.02090	.21350	.11340	.03680	-.00890
3.002	-2.060	-.01240	-.00350	.06380	-.02380	.01030	.21220	.13770	.02940	-.00640
3.002	.030	-.01050	-.00220	-.00840	-.00210	.00110	.21140	.09430	.02660	-.00330
3.002	2.130	-.00910	-.00920	-.07960	.01990	-.00840	.21310	.08720	.02490	-.00240
3.002	4.220	-.00910	-.01210	-.15070	.04530	-.01850	.21430	.08250	.02200	-.00280
3.002	6.320	-.01070	-.01320	-.27640	.07960	-.03030	.21570	.07640	.02030	-.00460
3.002	7.350	-.01170	-.01190	-.26620	.08530	-.03570	.21650	.07340	.01910	-.00420
	GRADIENT	.00061	-.00084	-.03420	.01094	-.00466	.00012	-.00537	-.00163	.00077

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(RB2062) (24 JAN 74)

AMES 87-710 IA12C O1 T1 S1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 62/ 0 RN/L = 1.98 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.900	-.42680	.22730	.12940	.00100	.01880	.23110	-.00880	-.00680	-.00560
3.002	-5.920	-.32750	.21830	.09690	-.00110	.01180	.22410	.01430	.00100	-.00590
3.002	-3.890	-.22490	.20600	.06340	-.00270	.00580	.21600	.04270	.00990	-.00490
3.002	-1.900	-.13540	.20380	.03740	-.00460	.00150	.21420	.06040	.01910	-.00430
3.002	.100	-.05510	.19830	.01800	-.00690	-.00180	.20900	.08960	.02740	-.00410
3.002	2.070	.02000	.19280	.00030	-.00860	-.00370	.20470	.10360	.03460	-.00390
3.002	4.090	.10040	.18780	-.02140	-.01160	-.00900	.20150	.12460	.04290	-.00310
3.002	6.130	.18510	.18400	-.04700	-.01460	-.01260	.19870	.14390	.05260	-.00400
3.002	8.120	.26830	.18100	-.07070	-.01780	-.01620	.19720	.16190	.06000	-.00560
	GRADIENT	.04044	-.00238	-.01037	-.00109	-.00175	-.00193	.01039	.00408	.00025

(RBZ063) (24 JAN 74)

AMES 87-710 IA12C O1 T1 S1

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 63/ 0 RN/L = 2.34 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.740	-.39720	.25180	.12340	-.00110	.01530	.23430	-.00540	-.00410	-.00840
3.499	-5.760	-.31020	.24160	.09920	-.00300	.01180	.22430	.00980	.00310	-.00820
3.499	-2.740	-.18350	.23150	.06430	-.00580	.00610	.21440	.02990	.01230	-.00770
3.499	-1.730	-.14260	.22770	.05420	-.00790	.00410	.21080	.03790	.01530	-.00770
3.499	.250	-.07080	.22440	.03870	-.00880	.00050	.20720	.04910	.02110	-.00790
3.499	2.280	.00250	.21980	.01980	-.01130	-.00220	.20280	.06780	.02710	-.00690
3.499	4.290	.07680	.21610	.00040	-.01320	-.00470	.19940	.08020	.03240	-.00610
3.499	6.310	.14880	.21250	-.01950	-.01650	-.00790	.19680	.09790	.03940	-.00670
3.499	8.290	.22400	.21040	-.04470	-.02030	-.00710	.19460	.12340	.04690	-.00710
	GRADIENT	.03679	-.00212	-.00898	-.00100	-.00153	-.00208	.00723	.00287	.00023

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AMES 87-710 IA12C C1 T1 S1 (RBZ064) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 64/ 0 RN/L = 2.41 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.01880	-.01150	.25480	-.09470	.03530	.21120	.11720	.03940	-.01210
3.499	-6.580	-.01750	-.01040	.21610	-.08070	.03080	.21080	.09770	.03520	-.01200
3.499	-4.380	-.01270	-.00590	.13690	-.05210	.02040	.20930	.06670	.02980	-.00970
3.499	-2.200	-.01160	-.00300	.06520	-.02480	.01080	.20850	.05360	.02500	-.01040
3.499	-.020	-.01010	.00070	-.00540	-.00090	.00100	.20790	.03780	.02080	-.00770
3.499	2.170	-.00850	.00510	-.07540	.02190	-.00930	.20640	.03110	.01720	-.00430
3.499	4.350	-.00720	.00810	-.15350	.05190	-.01940	.20790	.02810	.01370	-.00190
3.499	6.540	-.00560	.00700	-.22870	.07880	-.02850	.20680	.00990	.00820	-.00180
3.499	7.630	-.00560	.00630	-.26540	.09120	-.03500	.20770	.00570	.00680	-.00230
	GRADIENT	.00065	.00162	-.03295	.01167	-.00456	-.00022	-.00457	-.00181	.00099

AMES 87-710 IA12C C1 T1 S1 (RBZ065) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 23.880 SRMPR = .826
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 65/ 0 RN/L = 1.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.01860	-.01220	.2280	-.07090	.03200	.20110	.10410	.04070	-.01220
3.499	-6.580	-.01690	-.01160	.18840	-.05820	.02900	.20020	.09770	.03630	-.01150
3.499	-4.390	-.01480	-.01030	.12860	-.04250	.01810	.19920	.08900	.03120	-.01090
3.499	-2.200	-.01280	-.00650	.05460	-.01710	.00830	.19670	.06540	.02790	-.00570
3.499	-.020	-.01080	-.00760	-.00950	.00130	.00060	.19340	.07890	.02610	-.00550
3.499	2.170	-.00560	-.01090	-.07150	.01860	-.00930	.19450	.06150	.02050	-.00170
3.499	4.350	-.00460	-.01170	-.13490	.03650	-.01870	.19600	.04030	.01240	-.00050
3.499	6.540	-.00880	-.00590	-.20060	.05630	-.02570	.19990	.02450	.01100	-.00080
3.499	7.630	-.00810	-.00490	-.24270	.07160	-.03180	.19910	.01300	.00640	-.00140
	GRADIENT	.00126	-.00028	-.02989	.00887	-.00417	-.00039	-.00464	-.00202	.00127

AMES 87-710 IA12C C4 T1 S1 (RBZ066) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.880 SRMPR = .926
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 66/ 0 RN/L = 1.45 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.770	-.37620	.20180	.09830	-.00440	-.00220	.22300	-.01330	-.00240	-.00990
3.499	-5.750	-.28680	.18930	.07250	-.00540	-.00390	.21280	.00860	.00510	-.00900
3.499	-3.770	-.20300	.17910	.05010	-.00660	-.00410	.20340	.02590	.01220	-.00790
3.499	-1.750	-.11600	.17460	.02420	-.00820	-.00730	.19960	.04980	.02020	-.00660
3.499	.250	-.04060	.16680	.00670	-.00960	-.00800	.19130	.06210	.02750	-.00570
3.499	2.220	.02360	.16250	-.00380	-.00700	-.00650	.18650	.07290	.02920	-.00260
3.499	4.240	.08970	.15800	-.01850	-.00720	-.00960	.18280	.08240	.03300	-.00120
3.499	6.200	.16040	.15580	-.03680	-.01020	-.01590	.17920	.10520	.03890	-.00280
3.499	8.230	.24460	.15260	-.06800	-.01460	-.02290	.17930	.13250	.05000	-.00490
	GRADIENT	.03627	-.00272	-.00827	-.00000	-.00051	-.00272	.01685	.00253	.00081

AMES 87-710 IA12C C8 T1 S1 (RBZ067) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.280 SRMPR = .916
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 67/ 0 RN/L = 2.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.910	-.46800	.24930	.14730	-.00540	.02580	.24620	-.00930	-.01480	-.00200
2.499	-5.860	-.34640	.24150	.10430	-.00740	.01860	.24040	.01520	-.00430	-.00210
2.499	-3.880	-.23720	.23600	.06770	-.00980	.01300	.23490	.04710	.00670	-.00190
2.499	-1.880	-.14120	.23430	.03930	-.01240	.00750	.23280	.08590	.01770	-.00160
2.499	.110	-.05170	.23060	.01590	-.01530	.00170	.23040	.11780	.02940	-.00130
2.499	2.110	.03230	.22340	-.00710	-.01820	-.00650	.22710	.14650	.03980	-.00170
2.499	4.130	.12020	.22290	-.03170	-.02190	-.01180	.22520	.17810	.05290	-.00240
2.499	6.130	.21480	.22810	-.06140	-.02640	-.01790	.22940	.21380	.06790	-.00390
2.499	8.160	.31650	.22800	-.09470	-.03380	-.02210	.23100	.25900	.08340	-.00680
	GRADIENT	.04439	-.00185	-.01225	-.00150	-.00318	-.00125	.01612	.00568	-.00006

AMES 97-710 IA12C C8 T1 S1 (RBZ068) (24 JAN 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	953.0000 IN.		
LREF =	1328.0000 IN.	YMRP =	.0000 IN.		
BREF =	1328.0000 IN.	ZMRP =	400.0000 IN.		
SCALE =	.0190				

PARAMETRIC DATA

BETA =	.000	POWER =	1.000
CPR =	31.260	SRMFR =	.916
GIMBAL =	1.000	RUDDER =	10.000

RUN NO. 68/ 0 RN/L = 2.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.870	-.45910	.25290	.14710	.00260	.02890	.24650	-.01460	-.01440	-.00200
2.499	-5.870	-.34200	.24560	.10570	-.00020	.02180	.24020	.00850	-.00410	-.00220
2.499	-3.860	-.23120	.24070	.06840	-.00310	.01590	.23610	.04320	.00660	-.00210
2.499	-1.850	-.13220	.23860	.03980	-.00670	.01020	.23280	.08590	.01770	-.00170
2.499	.170	-.04130	.23310	.01500	-.00980	.00340	.23030	.11870	.02940	-.00150
2.499	2.130	.04160	.22680	-.00680	-.01280	-.00520	.22710	.14600	.03990	-.00180
2.499	4.170	.12970	.22640	-.03190	-.01690	-.01090	.22560	.17260	.05280	-.00270
2.499	6.130	.22350	.22700	-.06230	-.02250	-.01790	.22840	.21460	.06720	-.00400
2.499	8.160	.32790	.22560	-.09650	-.03030	-.02220	.22870	.25270	.08320	-.00680
	GRADIENT	.04469	-.00202	-.01234	-.00168	-.00344	-.00133	.01591	.00572	-.00006

AMES 87-710 IA12C C8 T1 S1 (RBZ069) (24 JAN 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	953.0000 IN.		
LREF =	1328.0000 IN.	YMRP =	.0000 IN.		
BREF =	1328.0000 IN.	ZMRP =	400.0000 IN.		
SCALE =	.0190				

PARAMETRIC DATA

BETA =	.000	POWER =	1.000
CPR =	26.860	SRMFR =	.768
GIMBAL =	1.000	RUDDER =	10.000

RUN NO. 69/ 0 RN/L = 2.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.003	-7.880	-.39740	.23370	.12540	-.00340	.01750	.23490	.01790	-.00660	-.00470
3.003	-5.890	-.30040	.22340	.09390	-.00550	.01060	.22740	.05130	.00070	-.00470
3.003	-3.890	-.20000	.21510	.06570	-.00750	.00450	.22270	.06820	.00940	-.00420
3.003	-1.890	-.11220	.20920	.03480	-.00920	-.00060	.21730	.08720	.01820	-.00360
3.003	.100	-.03170	.20380	.01620	-.01180	-.00370	.21190	.11280	.02680	-.00330
3.003	2.070	.04350	.19950	-.00240	-.01340	-.00800	.20890	.13430	.03370	-.00250
3.003	4.090	.12370	.19450	-.02370	-.01660	-.01110	.20590	.15000	.04220	-.00240
3.003	6.070	.20700	.19240	-.04830	-.01990	-.01390	.20500	.17310	.05140	-.00330
3.003	8.100	.29080	.18940	-.07250	-.02330	-.01790	.20300	.18970	.05910	-.00500
	GRADIENT	.04032	-.00256	-.01034	-.00114	-.00184	-.00215	.01058	.00407	.00024

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AMES 87-710 IA12C C8 T1 S1 (RBZ070) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.860 SRMPR = .826
GIMBAL = 1.000 RUDDER = 10.000

RUN NO. 70/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.760	-.34880	.21040	.09680	-.01250	-.00320	.22810	.04870	-.00350	-.00820
3.499	-5.750	-.26110	.19710	.07090	-.01570	-.00570	.21770	.06870	.00390	-.00720
3.499	-3.770	-.18030	.18810	.05030	-.01780	-.00610	.20920	.08850	.01070	-.00580
3.499	-1.770	-.09690	[illegible]	.02600	-.01950	-.00850	.20370	.10060	.01810	-.00490
3.499	.250	-.02170	.17910	.00910	-.02160	-.01070	.20000	.11440	.02520	-.00450
3.499	2.250	.04740	.17160	-.00470	-.02140	-.00990	.19330	.12380	.03010	-.00240
3.499	4.250	.11280	.16830	-.01860	-.02080	-.01220	.18960	.13900	.03260	-.00040
3.499	6.250	.18250	.16570	-.03590	-.02250	-.01690	.18710	.16110	.03660	-.00100
3.499	8.230	.26350	.16370	-.06770	-.02740	-.02410	.18720	.18040	.04880	-.00350
	GRADIENT	.03642	-.00252	-.00840	-.00039	-.00068	-.00247	.00619	.00278	.00066

AMES 87-710 IA12C C8 T1 S1 (RBZ071) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 2.000
SRMPR = .826 GIMBAL = 1.000
RUDDER = 10.000

RUN NO. 71/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.750	-.36070	.21680	.10320	-.01710	.00810	.22500	.03950	-.00460	-.00650
3.499	-5.740	-.27480	.20440	.08090	-.01860	.00400	.21460	.05500	.00280	-.00610
3.499	-3.740	-.19490	.19740	.06050	-.02040	.00000	.20770	.07990	.00940	-.00540
3.499	-1.750	-.11070	.19100	.03580	-.02240	-.00380	.20270	.09580	.01650	-.00480
3.499	.260	-.03490	.18640	.01840	-.02450	-.00660	.19800	.10810	.02300	-.00470
3.499	2.240	.03720	.18090	.00080	-.02580	-.00820	.19260	.13100	.02940	-.00350
3.499	4.240	.10530	.17780	-.01510	-.02760	-.01070	.19090	.14660	.03450	-.00250
3.499	6.260	.17290	.17610	-.03200	-.03120	-.01480	.18750	.15910	.04070	-.00360
3.499	8.290	.25350	.17480	-.06130	-.03450	-.01910	.18800	.17800	.04930	-.00490
	GRADIENT	.03751	-.00247	-.00933	-.00089	-.00129	-.00219	.00845	.00316	.00036

AMES 87-710 IA12C C1 T1 S4 (RBZ072) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 1.000 RUDDER = .000

RUN NO. 72/ 0 RN/L = 2.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.890	-.47260	.25950	.15390	.00390	.02940	.25510	-.02830	-.01460	-.00190
2.498	-5.920	-.34970	.25740	.10680	.00100	.02240	.25500	.00480	-.00490	-.00200
2.498	-3.930	-.23940	.25310	.07040	-.00190	.01580	.25300	.03670	.00620	-.00190
2.498	-1.880	-.14000	.25600	.04090	-.00540	.01080	.25410	.07530	.01760	-.00140
2.498	.120	-.04860	.25830	.01600	-.00930	.00540	.25620	.10420	.02920	-.00100
2.498	2.160	.03940	.25190	-.00960	-.01270	-.00370	.25530	.13620	.04000	-.00130
2.498	4.130	.13300	.25140	-.03990	-.01630	-.01140	.25670	.16110	.05260	-.00220
2.498	6.130	.23120	.25060	-.07470	-.02130	-.01800	.25400	.20390	.06740	-.00360
2.498	8.110	.33630	.24950	-.11280	-.02870	-.02330	.25990	.24230	.08290	-.00630
	GRADIENT	.04584	-.00037	-.01345	-.00179	-.00341	.00043	.01537	.00571	-.00002

AMES 87-710 IA12C C1 T1 S4 (RBZ073) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 73/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.950	-.46730	.32780	.16000	.00620	.04340	.25970	-.02980	-.01600	-.00060
2.498	-5.860	-.34450	.32340	.11340	.00250	.03610	.25770	-.00490	-.00510	-.00070
2.498	-3.960	-.23220	.32170	.07370	-.00070	.02980	.25730	.02610	.00590	-.00090
2.498	-1.860	-.13250	.32310	.04240	-.00390	.02290	.25900	.06480	.01610	-.00090
2.498	.150	-.04200	.32260	.01660	-.00790	.01630	.26070	.10060	.02790	-.00090
2.498	2.140	.04570	.32080	-.00910	-.01150	.00670	.25990	.13270	.03830	-.00120
2.498	4.150	.13630	.32170	-.03770	-.01580	-.00540	.26190	.16480	.05150	-.00240
2.498	6.160	.23520	.32210	-.07310	-.02150	-.01370	.26460	.20510	.06630	-.00390
2.498	8.140	.34340	.32070	-.11330	-.02950	-.01970	.26620	.24550	.08220	-.00670
	GRADIENT	.04571	-.00011	-.01370	-.00189	-.00433	.00050	.01725	.00566	-.00016

AMES 87-710 IA12C O1 T1 S4 (RBZ074) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CFR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. T4/ 0 RN/L = 2.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.930	-.41550	.23790	.13530	-.00240	.01600	.24290	.00390	-.00710	-.00490
3.002	-5.960	-.30940	.23240	.09730	-.00450	.01030	.24020	.02470	.00070	-.00460
3.002	-3.870	-.20360	.22630	.05980	-.00620	.00490	.23770	.05200	.00970	-.00400
3.002	-1.930	-.11520	.22660	.03300	-.00810	.00000	.23780	.07480	.01840	-.00330
3.002	.080	-.03570	.22410	.01510	-.01070	-.00330	.23630	.09770	.02700	-.00280
3.002	2.090	.04220	.21950	-.00440	-.01240	-.00460	.23410	.11900	.03430	-.00180
3.002	4.090	.12090	.21690	-.02700	-.01540	-.00920	.23290	.13710	.04220	-.00180
3.002	6.140	.21000	.21310	-.05490	-.01890	-.01320	.23210	.158[illegible]	.05200	-.00290
3.002	8.100	.29440	.20830	-.08230	-.02230	-.01590	.22990	.17260	.05970	-.00440
	GRADIENT	.04080	-.00135	-.01060	-.00114	-.00165	-.00067	.01059	.00407	.00030

AMES 87-710 IA12C O1 T1 S4 (RBZ075) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. T5/ 0 RN/L = 2.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.910	-.41340	.29250	.13790	-.00120	.02620	.24940	-.00750	-.00680	-.00390
3.002	-5.880	-.30890	.28780	.10020	-.00350	.02100	.24490	.00990	-.00040	-.00420
3.002	-3.840	-.20710	.28530	.06540	-.00530	.01500	.24260	.04880	.00770	-.00420
3.002	-1.850	-.11950	.28720	.04070	-.00750	.00900	.24430	.06870	.01620	-.00410
3.002	.110	-.04390	.28540	.02380	-.00990	.00390	.24380	.08760	.02420	-.00420
3.002	2.120	.03580	.28500	.00250	-.01170	.00050	.24360	.10530	.03150	-.00330
3.002	4.110	.11770	.28260	-.02200	-.01500	-.00480	.24290	.13130	.03970	-.00330
3.002	6.130	.20260	.28120	-.04750	-.01810	-.00920	.24300	.14840	.04900	-.00420
3.002	8.110	.28790	.27720	-.07410	-.02170	-.01180	.24010	.15840	.05610	-.00560
	GRADIENT	.04051	-.00038	-.01072	-.00119	-.00242	-.00001	.01015	.00399	.00013

AMES 87-710 IA12C C4 T1 S4 (RBZ076) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.860 SRMPR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 76/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.800	-.36790	.20840	.10750	-.01290	-.00400	.23650	.03570	-.00330	-.00770
3.499	-5.800	-.27900	.19550	.08000	-.01480	-.00590	.22810	.06180	.00400	-.00690
3.499	-3.790	-.18850	.18910	.05090	-.01640	-.00770	.22200	.07470	.01170	-.00500
3.499	-1.800	-.09730	.18640	.01890	-.01840	-.01050	.22080	.08790	.02000	-.00440
3.499	.200	-.02460	.18390	.00530	-.01940	-.01030	.21800	.10490	.02660	-.00310
3.499	2.190	.03890	.17750	-.00690	-.01840	-.01040	.21350	.11120	.02980	-.00100
3.499	4.180	.10970	.17630	-.02390	-.01870	-.01480	.21300	.13680	.03300	.00180
3.499	6.230	.18200	.17360	-.04550	-.02190	-.02050	.20800	.14030	.04030	-.00120
3.499	8.260	.27070	.17570	-.08430	-.02640	-.02680	.21430	.17030	.05150	-.00320
	GRADIENT	.03676	-.00173	-.00880	-.00023	-.00069	-.00127	.00740	.00263	.00073

AMES 87-710 IA12C C4 T1 S4 (RBZ077) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 77/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.730	-.38780	.26800	.12550	-.01600	.01330	.24230	.01350	-.00510	-.00610
3.499	-5.760	-.29840	.25900	.09720	-.01750	.00900	.23640	.02960	.00180	-.00610
3.499	-3.750	-.20770	.25780	.06900	-.01920	.00530	.23530	.04490	.00830	-.00580
3.499	-1.770	-.12840	.25540	.04740	-.02080	.00170	.23170	.05710	.01480	-.00560
3.499	.260	-.05220	.25480	.03130	-.02220	-.00220	.23350	.07290	.02070	-.00570
3.499	2.260	.02380	.25350	.01000	-.02330	-.00500	.23170	.09070	.02640	-.00480
3.499	4.240	.09620	.25010	-.01070	-.02500	-.00730	.22860	.11320	.03200	-.00390
3.499	6.270	.16670	.24700	-.03190	-.02800	-.01010	.22670	.12410	.03850	-.00460
3.499	8.300	.25420	.24340	-.06500	-.03170	-.00990	.22470	.14480	.04680	-.00490
	GRADIENT	.03797	-.00086	-.00983	-.00071	-.00159	-.00067	.00850	.00295	.00023

AMES 87-710 IA12C C8 T1 S1 (RBZ078) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 1328.0000 IN.
BREF = 1328.0000 IN.
SCALE = .0190

XMRP = 953.0000 IN.
YMRP = .0000 IN.
ZMRP = 400.0000 IN.

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.280 SRMPR = .916
GIMBAL = 1.000 RUDDER = .000

RUN NO. 78/ 0 RN/L = 2.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.830	-.47070	.24970	.14680	.00090	.02890	.24570	-.02810	-.01430	-.00250
2.498	-5.850	-.35270	.24250	.10550	-.00060	.02280	.24050	-.00490	-.00390	-.00260
2.498	-3.850	-.24270	.23740	.06810	-.00310	.01670	.23570	.03150	.00670	-.00250
2.498	-1.860	-.14550	.23580	.03970	-.00600	.01150	.23240	.06670	.01800	-.00210
2.498	.150	-.05630	.23100	.01550	-.00920	.00530	.23000	.10190	.02960	-.00190
2.498	2.110	.02750	.22490	-.00620	-.01230	-.00430	.22700	.12910	.04030	-.00220
2.498	4.160	.11560	.22420	-.03110	-.01650	-.00940	.22440	.15960	.05300	-.00300
2.498	6.140	.21000	.22550	-.06190	-.02140	-.01600	.22800	.19790	.06770	-.00440
2.498	8.150	.31290	.22510	-.09530	-.02890	-.02070	.22910	.23790	.08360	-.00700
	GRADIENT	.04450	-.00186	-.01222	-.00166	-.00340	-.00140	.01594	.00575	-.00006

AMES 87-710 IA12C C8 T1 S1 (RBZ079) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT.
LREF = 1328.0000 IN.
BREF = 1328.0000 IN.
SCALE = .0190

XMRP = 953.0000 IN.
YMRP = .0000 IN.
ZMRP = 400.0000 IN.

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. 79/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.003	-7.920	-.41320	.23170	.12570	.00340	.02080	.23450	-.01480	-.00620	-.00590
3.003	-5.910	-.31340	.22210	.09380	.00140	.01430	.22740	.01530	.00120	-.00570
3.003	-3.890	-.21900	.21300	.06160	-.00040	.00840	.22140	.03970	.00990	-.00500
3.003	-1.890	-.12500	.20860	.03500	-.00230	.00340	.21680	.05400	.01890	-.00460
3.003	.110	-.04270	.20380	.01600	-.00480	.00010	.21290	.08690	.02720	[illegible]
3.003	2.110	.03330	.19730	-.00250	-.00670	-.00270	.20860	.10040	.03460	-.00340
3.003	4.090	.11100	.19340	-.02340	-.01000	-.00820	.20560	.11980	.04290	-.00350
3.003	6.120	.19610	.18950	[illegible]	-.01330	-.01110	.20610	.14380	.05230	-.00430
3.003	8.120	.27990	.18730	[illegible]	-.01670	-.01480	.20180	.15620	.05990	-.00590
	GRADIENT	.04060	-.00250	-.01040	-.00118	-.00197	-.00199	.01035	.00409	.00021

AMES 87-710 IA12C C8 T1 S1 (RB2080) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CRR = 23.860 SRMFR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 80/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.498	-7.740	-.38010	.20990	.09510	-.00260	.00130	.23020	.00770	-.00270	-.00970
3.498	-5.770	-.26650	.19600	.06850	-.00440	-.00140	.21790	.02180	.00480	-.00880
3.498	-3.760	-.18880	.18590	.04740	-.00620	-.00200	.20760	.03940	.01190	-.00720
3.498	-1.750	-.10640	.17980	.02410	-.00800	-.00440	.20340	.05830	.01920	-.00640
3.498	.290	-.02940	.17540	.00560	-.01010	-.00670	.19810	.07730	.02630	-.00590
3.498	.910	.03490	.18470	-.01470	-.00980	-.00520	.20410	.09300	.03000	-.00370
3.498	4.250	.10580	.16690	-.02080	-.00970	-.00800	.18880	.09510	.03360	-.00200
3.498	6.210	.17270	.16390	-.03810	-.01180	-.01320	.18630	.10770	.03870	-.00300
3.498	8.240	.25470	.16230	-.06930	-.01640	-.02000	.18730	.13680	.04980	-.00510
	GRADIENT	.03777	-.00211	-.00859	-.00045	-.00071	-.00218	.00733	.00279	.00068

AMES 87-710 IA12C C8 T1 S1 (RB2081) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 2.000
SRMFR = .826 GIMBAL = 1.000
RUDDER = .000

RUN NO. 81/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.498	-7.730	-.36720	.21400	.10110	-.00580	.01330	.22340	-.00280	-.00360	-.00780
3.498	-5.760	-.28360	.20300	.07850	-.00740	.00880	.21510	.00850	.00390	-.00750
3.498	-3.740	-.20080	.19620	.05820	-.00890	.00480	.20890	.03270	.01050	-.00680
3.498	-1.770	-.11790	.18880	.03340	-.01060	.00170	.20280	.05020	.01770	-.00600
3.498	.280	-.03890	.18380	.01550	-.01290	-.00120	.19680	.06750	.02410	-.00590
3.498	2.240	.03230	.18050	-.00170	-.01410	-.00300	.19360	.08880	.03030	-.00480
3.498	4.280	.10100	.17610	-.01760	-.01580	-.00590	.19040	.10360	.03560	-.00400
3.498	6.290	.16700	.17530	-.03380	-.01920	-.00970	.18680	.11870	.04150	-.00510
3.498	8.280	.24730	.17340	-.06300	-.02240	-.01370	.18840	.14070	.05020	-.00640
	GRADIENT	.03765	-.00242	-.00933	-.00086	-.00126	-.00231	.00900	.00314	.00032

AMES 87-710 IA12C C4 T1 S1 (RBZ082) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 1.000 RUDDER = .000

RUN NO. 82/ 0 RN/L = 2.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.870	-.46740	.25470	.14650	-.00590	.03240	.24540	-.00950	-.01500	-.00080
2.498	-5.880	-.35370	.24680	.10710	-.00800	.02570	.23890	.01690	-.00470	-.00[illegible]
2.498	-3.860	-.24300	.23970	.06970	-.01010	.02000	.23300	.04660	.00600	-.00190
2.498	-1.890	-.14630	.23730	.04110	-.01260	.01340	.23040	.08630	.01720	-.00070
2.498	.150	-.05680	.23320	.01750	-.01590	.00670	.22800	.12260	.02890	-.00060
2.498	2.100	.02510	.22890	-.00380	-.01870	-.00170	.22520	.14800	.03940	-.00090
2.498	4.080	.11170	.22770	-.02820	-.02220	-.00890	.22430	.17820	.05210	-.00170
2.498	6.140	.20840	.22880	-.05900	-.02730	-.01540	.22710	.21890	.06720	-.00320
	GRADIENT	.04433	-.00163	-.01211	-.00152	-.00363	-.00114	.01626	.00576	-.00009

AMES 87-710 IA12C C4 T1 S1 (RBZ083) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. 83/ 0 RN/L = 2.26 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.920	-.41350	.24540	.12700	-.00620	.02190	.22830	.01430	-.00720	-.00370
3.002	-5.890	-.31240	.22420	.09480	-.00820	.01630	.22600	.04180	.00050	-.00350
3.002	-3.920	-.21680	.21340	.06370	-.00990	.01040	.21630	.06720	.00870	-.00290
3.002	-1.920	-.12500	.20750	.03700	-.01180	.00510	.21370	.08730	.01790	-.00240
3.002	.100	-.04210	.20570	.01710	-.01430	.00130	.21230	.10820	.02660	-.00220
3.002	2.080	.03310	.18880	-.00400	-.01630	-.00190	.19740	.12650	.03370	-.00140
3.002	4.060	.11140	.19530	-.02240	-.01940	-.00810	.20390	.14610	.04180	-.00170
3.002	6.050	.19320	.19440	-.04480	-.02260	-.01110	.20550	.16510	.05090	-.00250
3.002	8.090	.27810	.19190	-.06920	-.02600	-.01360	.20160	.18370	.05880	-.00410
	GRADIENT	.04081	-.00275	-.01068	-.00118	-.00220	-.00226	.00987	.00411	.00017

AMES 87-710 IA12C C4 T1 S1 (RBZ084) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.880 SRMPR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 84/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.790	-.36250	.20750	.09940	-.01590	.00690	.22380	.04770	-.00430	-.00570
3.499	-5.770	-.27600	.19670	.07500	-.01810	.00110	.21600	.06800	.00330	-.00530
3.499	-3.800	-.19540	.18810	.05490	-.01980	-.00150	.20680	.08430	.01080	-.00420
3.499	-1.790	-.11120	.18220	.02950	-.02230	-.00520	.20290	.09080	.01790	-.00380
3.499	2.220	.03480	.17260	-.00330	-.02540	-.00670	.19540	.12620	.03000	-.00190
3.499	4.290	.10530	.16810	-.01950	-.02700	-.01000	.19010	.31590	.02530	-.00100
3.499	6.220	.17260	.16640	-.03720	-.02980	-.01380	.18870	.16280	.04180	-.00200
3.499	8.220	.25250	.16390	-.06610	-.03130	-.01930	.18710	.18490	.04920	-.00290
	GRADIENT	.03716	-.00247	-.00903	-.00087	-.00092	-.00201	.02483	.00204	.00041

AMES 87-710 IA12C C4 T1 S1 (RBZ085) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 3.000 RUDDER = .000

RUN NO. 85/ 0 RN/L = 2.35 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-3.890	-.23720	.25870	.07640	-.01450	.01290	.22980	.04490	.00740	-.00400
3.002	-1.890	-.14860	.25500	.05300	-.01600	.00730	.22630	.05980	.01600	-.00400
3.002	.130	-.07300	.25010	.03460	-.01720	.00230	.22190	.08150	.02380	-.00450
3.002	2.110	.00680	.24470	.01380	-.01680	-.00110	.21740	.10630	.03130	-.00380
3.002	4.120	.08790	.24250	-.00980	-.01880	-.00670	.21600	.13020	.03940	-.00400
3.002	6.150	.17340	.24030	-.03500	-.02120	-.01010	.21430	.14900	.04960	-.00490
3.002	8.130	.25490	.23640	-.05790	-.02360	-.01270	.21130	.15900	.05690	-.00630
	GRADIENT	.04024	-.00213	-.01057	-.00046	-.00238	-.00182	.01084	.00396	.00001

AMES 87-710 IA12C C1 T1 S1 (RBZ086) (24 JAN 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	953.0000 IN.
LREF =	1328.0000 IN.	YMRP =	.0000 IN.
BREF =	1328.0000 IN.	ZMRP =	400.0000 IN.
SCALE =	.0190		

PARAMETRIC DATA

ALPHA =	.000	POWER =	.000
GIMBAL =	3.000	RUDDER =	.000

RUN NO. 86/ 0 RN/L = 2.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.01720	-.00650	.26150	-.09380	.03630	.22610	.16490	.05040	-.00900
3.002	-6.240	-.01540	-.00700	.22210	-.08010	.03050	.22260	.12510	.04600	-.00850
3.002	-4.150	-.01160	-.00330	.14330	-.05040	.01960	.21960	.10320	.03680	-.00870
3.002	-2.060	-.00980	.00160	.06670	-.02330	.00980	.22120	.08240	.03000	-.00670
3.002	.030	-.00740	.00340	-.00530	.00050	-.00110	.21970	.06490	.02330	-.00490
3.002	2.120	-.00540	.00940	-.07540	.02310	-.01040	.22030	.03040	.01950	-.00170
3.002	4.210	-.00390	.01400	-.14850	.04950	-.02010	.21910	.02700	.01480	.00010
3.002	6.300	-.00320	.01150	-.23100	.08100	-.03180	.21990	.01470	.00960	-.00090
3.002	7.350	-.00210	.01000	-.27250	.09590	-.03800	.22220	.00990	.00940	-.00020
	GRADIENT	.00095	.00203	-.03472	.01178	-.00477	-.00009	-.00978	-.00261	.00108

AMES 87-710 IA12C C1 T1 S1 (RBZ087) (24 JAN 74)

REFERENCE DATA

SREF =	2690.0000 SQ.FT.	XMRP =	953.0000 IN.
LREF =	1328.0000 IN.	YMRP =	.0000 IN.
BREF =	1328.0000 IN.	ZMRP =	400.0000 IN.
SCALE =	.0190		

PARAMETRIC DATA

ALPHA =	.000	POWER =	1.000
CPR =	26.660	SRMPR =	.768
GIMBAL =	3.000	RUDDER =	.000

RUN NO. 87/ 0 RN/L = 2.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-6.240	-.01220	-.00530	.21270	-.06890	.02680	.20900	.12000	.04750	-.00950
3.002	-4.150	-.00990	-.00450	.13680	-.04140	.01780	.20810	.09250	.03800	-.00910
3.002	-2.060	-.00710	-.00140	.06090	-.01610	.00580	.20750	.08490	.03180	-.00620
3.002	.030	-.00500	-.00100	-.00630	.00030	-.00120	.20810	.06740	.02810	-.00350
3.002	2.120	-.00380	-.00650	-.07680	.02010	-.01020	.20840	.06290	.02580	-.00250
3.002	4.220	-.00360	-.00910	-.15270	.04710	-.01990	.20760	.05410	.02330	-.00280
3.002	6.300	-.00430	-.00960	-.22200	.07210	-.03010	.20920	.04090	.01910	-.00480
3.002	7.350	-.00470	-.00940	-.26590	.08740	-.03580	.21020	.03730	.01810	-.00440
	GRADIENT	.00066	-.00070	-.03425	.01019	-.00437	-.00000	-.00472	-.00169	.00078

AMES 87-710 IA12C C1 T1 S1 (RBZ088) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .764
GIMBAL = 3.000 RUDDER = .000

RUN NO. 88/ 0 RN/L = 2.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.980	-.42100	.22330	.12550	.00550	.01900	.22620	-.02420	-.00630	-.00570
3.002	-5.980	-.31840	.21230	.09320	.00340	.01310	.21750	-.00850	.00180	-.00560
3.002	-3.970	-.21980	.20440	.06140	.00140	.00770	.21270	.02030	.01080	-.00480
3.002	-1.950	-.12880	.19900	.03450	-.00080	.00220	.20880	.03880	.02030	-.00430
3.002	.040	-.04710	.19320	.01460	-.00310	-.00170	.20450	.06350	.02860	-.00400
3.002	2.030	.02970	.18920	-.00300	-.00460	-.00100	.19950	.07920	.03560	-.00270
3.002	4.040	.10850	.18500	-.02390	-.00780	-.00640	.19700	.09890	.04380	-.00290
3.002	6.030	.19210	.18210	-.04770	-.01030	-.00950	.19600	.12150	.05340	-.00370
3.002	8.040	.27670	.17710	-.07160	-.01340	-.01310	.19410	.14040	.06130	-.00510
	GRADIENT	.04075	-.00243	-.01041	-.00110	-.00157	-.00202	.00983	.00407	.00027

AMES 87-710 IA12C C1 T1 S1 (RBZ089) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 3.000 RUDDER = .000

RUN NO. 89/ 0 RN/L = 1.78 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.740	-.37990	.24670	.11830	.00290	.01510	.23120	-.02890	-.00270	-.00870
3.499	-5.750	-.29260	.23580	.09430	.00090	.01240	.21930	-.01570	.00450	-.00840
3.439	-3.740	-.20640	.22910	.07050	-.00150	.00880	.21330	.00240	.01070	-.00810
3.499	-1.720	-.12720	.22410	.05000	-.00340	.00490	.20890	.01410	.01680	-.00800
3.499	.250	-.05250	.22030	.03410	-.00570	.00180	.20510	.02730	.02240	-.00810
3.499	2.250	.01990	.21540	.01540	-.00720	-.00130	.20080	.03860	.02840	-.00720
3.499	4.280	.09210	.21090	-.00280	-.00930	-.00390	.19540	.06130	.03370	-.00640
3.499	6.290	.16580	.21050	-.02330	-.01270	-.00680	.19610	.07520	.04080	-.00720
3.499	8.290	.24190	.20940	-.04840	-.01670	-.00640	.19520	.09310	.04830	-.00750
	GRADIENT	.03718	-.00229	-.00906	-.00097	-.00158	-.00219	.00711	.00288	.00021

AMES 87-710 IA12C C1 T1 S1 (RBZ090) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 3.000 RUDDER = .000

RUN NO. 90/ 0 RN/L = 1.77 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.01500	-.01080	.26480	-.09400	.03500	.20830	.07980	.04110	-.01230
3.499	-6.570	-.01310	-.00940	.22190	-.07820	.02720	.20590	.06300	.03680	-.01220
3.499	-4.390	-.00970	-.00560	.13970	-.04780	.01920	.20600	.04080	.03080	-.01020
3.499	-2.200	-.00850	-.00330	.07120	-.02280	.00880	.20440	.02730	.02640	-.01080
3.499	-.010	-.00640	-.00010	.00100	.00080	-.00080	.20320	.00410	.02230	-.00790
3.499	2.170	-.00480	.00510	-.06840	.02450	-.01020	.20400	.00130	.01900	-.00460
3.499	4.350	-.00360	.00820	-.14550	.05150	-.01820	.20410	-.00140	.01520	-.00210
3.499	6.540	-.00210	.00780	-.21550	.07640	-.02890	.20340	-.01930	.00940	-.00190
3.499	7.630	-.00211	.00670	-.26350	.09380	-.03490	.20390	-.02310	.00830	-.00230
	GRADIENT	.00073	.00165	-.03249	.01125	-.00429	-.00019	-.00495	-.00177	.00102

AMES 87-710 IA12C C1 T1 S1 (RBZ091) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 23.880 SRMPR = .826
GIMBAL = 3.000 RUDDER = .000

RUN NO. 91/ 0 RN/L = 1.77 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.01520	-.01090	.23140	-.06560	.03030	.19570	.08240	.04180	-.01220
3.499	-6.570	-.01350	-.01030	.19140	-.05130	.02600	.19210	.06350	.03760	-.01170
3.499	-4.380	-.01150	-.00850	.12400	-.03340	.01490	.19220	.05470	.03280	-.01090
3.499	-2.200	-.00940	-.00420	.06580	-.01550	.00700	.18770	.04590	.02870	-.00860
3.499	-.010	-.00760	-.00730	-.00250	.00180	.00000	.18720	.03480	.02860	-.00560
3.499	2.170	-.00450	-.00990	-.05810	.01510	-.00690	.18950	.04950	.02550	-.00290
3.499	4.350	-.00530	-.01190	-.12640	.03680	-.01540	.19350	.07990	.02000	-.00270
3.499	6.530	-.00490	-.00480	-.18900	.05400	-.02670	.19290	-.01070	.00950	-.00090
3.499	7.630	-.00500	-.00500	-.23200	.06880	-.03180	.19390	-.01810	.00930	-.00170
	GRADIENT	.00079	-.00057	-.02862	.00783	-.00341	.00020	.00247	-.00130	.00101

AMES 87-710 IA12C OA T1 S1 (RBZ092) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 23.860 SRMPR = .826
GIMBAL = 3.000 RUDDER = .000

RUN NO. 92/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.820	-.36830	.17160	.09380	-.00120	-.00020	.18950	-.03950	-.00120	-.00980
3.499	-5.830	-.27940	.17960	.07370	-.00250	-.00380	.20060	-.02180	.00690	-.00890
3.499	-3.810	-.19200	.17030	.04820	-.00420	-.00650	.19220	-.00630	.01430	-.00790
3.499	-1.840	-.10820	.16470	.02380	-.00570	-.00680	.18780	.01610	.02120	-.00690
3.499	.180	-.03350	.16050	.00570	-.00700	-.00770	.18410	.03320	.02870	-.00610
3.499	2.150	.03160	.15590	-.00460	-.00450	-.00420	.18060	.04470	.02980	-.00310
3.499	4.170	.09800	.15140	-.01820	-.00400	-.00630	.17640	.04320	.03230	-.00090
3.499	6.150	.16330	.14770	-.03290	-.00640	-.01140	.17330	.06490	.03620	-.00180
3.499	8.160	.22980	.14610	-.04950	-.00120	-.00940	.17190	.05780	.03080	-.00040
	GRADIENT	.03608	-.00234	-.00808	.00008	.00015	-.00194	.00639	.00229	.00089

AMES 87-710 IA12C OA T1 S1 (RBZ093) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 3.000 RUDDER = .000

RUN NO. 93/ 0 RN/L = 2.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.860	-.45870	.29260	.15200	.00900	.04340	.24200	-.06430	-.01430	-.00210
2.498	-5.850	-.34380	.28730	.11410	.00650	.03700	.23780	-.03600	-.00370	-.00220
2.499	-3.830	-.23590	.28160	.07990	.00390	.03080	.23320	-.00550	.00730	-.00230
2.499	-1.820	-.14130	.28040	.05380	.00160	.02360	.23290	.03480	.01740	-.00250
2.498	.140	-.05200	.27820	.03000	-.00190	.01690	.23070	.07000	.02890	-.00250
2.499	2.160	.03360	.27510	.00600	-.00510	.00690	.22880	.09610	.03960	-.00290
2.499	4.140	.12350	.27270	-.02140	-.00900	-.00360	.22770	.13330	.05250	-.00400
2.499	6.130	.22120	.27210	-.05510	-.01370	-.01150	.22860	.17370	.06730	-.00540
2.499	8.170	.32730	.27120	-.09190	-.02130	-.01680	.22920	.21670	.08320	-.00820
	GRADIENT	.04486	-.00116	-.01257	-.00163	-.00427	-.00076	.01701	.00565	-.00019

AMES 87-710 IA12C OL T1 S1 (RBZ094) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 3.000 RUDDER = .000

RUN NO. 94/ 0 RN/L = 2.94 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.00650	-.00040	.27920	-.10300	.03820	.23040	.14500	.05900	-.00620
2.499	-6.240	-.00620	.00210	.23790	-.08680	.03230	.22900	.14180	.05380	-.00670
2.499	-4.180	-.00070	.00860	.15460	-.05600	.02070	.23040	.10000	.04130	-.00590
2.499	-2.130	.00030	.01520	.07450	-.02760	.00910	.23080	.06850	.03490	-.00410
2.499	-.070	.00340	.01640	-.00090	-.00110	-.00070	.23190	.06140	.02780	-.00240
2.499	1.990	.00600	.02000	-.07440	.02470	-.01070	.23030	.02920	.02080	-.00030
2.499	4.050	.00610	.01970	-.15040	.05280	-.02180	.22770	.01000	.01820	.00120
2.499	6.110	.00660	.01890	-.24060	.08640	-.03450	.23040	-.00860	.01400	-.00010
2.499	7.140	.00550	.01830	-.28660	.10410	-.04170	.23160	-.01610	.01180	-.00110
	GRADIENT	.00094	.00131	-.03688	.01311	-.00509	-.00029	-.01066	-.00294	.00037

AMES 87-710 IA12C OL T1 S1 (RBZ095) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 3.000 RUDDER = .000

RUN NO. 95/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.499	-7.270	-.00830	-.00390	.27170	-.09250	.03650	.22180	.14700	.05890	-.00690
2.499	-6.240	-.00710	-.00250	.22730	-.07690	.03040	.21940	.14110	.05340	-.00720
2.499	-4.180	-.00230	.00390	.14610	-.04810	.01790	.22010	.10800	.04090	-.00640
2.499	-2.130	-.00090	.00400	.06880	-.02170	.00810	.21980	.08600	.03560	-.00440
2.499	-.070	.00280	.00500	-.00360	-.00020	.00000	.21770	.06230	.02930	-.00210
2.499	1.990	.00470	-.00280	-.07660	.02470	-.00950	.21910	.04710	.02650	-.00200
2.499	4.050	.00390	-.00540	-.15030	.04970	-.02020	.22000	.04460	.02500	-.00310
2.499	6.110	.00270	-.00720	-.23130	.07810	-.03170	.21720	.03730	.02330	-.00510
2.499	7.140	.00150	-.00690	-.27720	.09510	-.03770	.22010	.03090	.02310	-.00620
	GRADIENT	.00087	-.00123	-.03587	.01176	-.00456	-.00004	-.00805	-.00199	.00044

AMES 87-710 IA12C OL T1 S1 (RBZ096) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 3.000 RUDDER = .000

RUN NO. 96/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.499	-7.930	-.45150	.24080	.14510	.01480	.03030	.23260	-.06370	-.01350	-.00310
2.499	-5.940	-.33310	.23340	.10330	.01170	.02350	.22670	-.03690	-.00350	-.00320
2.499	-3.960	-.22260	.22790	.06590	.00890	.01750	.22250	-.00040	.00740	-.00310
2.499	-1.940	-.12440	.22300	.03670	.00590	.01160	.21760	.03680	.01890	-.00270
2.499	.070	-.03500	.21930	.01270	.00210	.00490	.21710	.07030	.03040	-.00240
2.499	2.020	.04800	.21380	-.00870	-.00150	-.00250	.21380	.09880	.04090	-.00260
2.499	4.030	.13610	.21310	-.03450	-.00570	-.00870	.21290	.13180	.05330	-.00350
2.499	6.020	.22990	.21360	-.06490	-.01060	-.01520	.21440	.17330	.06790	-.00490
2.499	8.040	.33300	.21440	-.09930	-.01860	-.02010	.21630	.21740	.08360	-.00780
	GRADIENT	.04463	-.00191	-.01235	-.00184	-.00333	-.00115	.01637	.00571	-.00003

AMES 87-710 IA12C OL T1 S1 (RBZ097) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 97/ 0 RN/L = 3.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.840	-.47490	.30170	.15630	-.00820	.03930	.25250	-.00110	-.01660	-.00060
2.498	-5.840	-.36100	.29020	.11810	-.01030	.03280	.24220	.01590	-.00600	-.00070
2.498	-3.820	-.25330	.29040	.08390	-.01270	.02640	.24300	.05010	.00520	-.00100
2.498	-1.840	-.16030	.28670	.05790	-.01510	.01960	.23960	.08560	.01540	-.00120
2.498	.170	-.07000	.28610	.03380	-.01840	.01230	.23900	.12000	.02720	-.00120
2.498	2.140	.01590	.28240	.00960	-.02130	.00320	.23570	.15310	.03770	-.00170
2.498	4.180	.10620	.27950	-.01840	-.02550	-.00760	.23380	.18460	.05130	-.00280
2.498	6.160	.20450	.27850	-.05210	-.03080	-.01490	.23490	.22420	.06670	-.00430
2.498	8.190	.30920	.27090	-.08830	-.03840	-.02000	.22880	.26790	.08280	-.00720
	GRADIENT	.04440	-.00131	-.01266	-.00159	-.00423	-.00112	.01684	.00573	-.00021

AMES 87-710 IA12C OL T1 S1 (RBZ098) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 98/ 0 RN/L = 2.95 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.260	-.02360	-.00390	.28620	-.10740	.04010	.23790	.20080	.05890	-.00500
2.498	-6.240	-.02220	-.00160	.23890	-.08930	.03370	.23530	.19430	.05320	-.00550
2.498	-4.180	-.01470	.00490	.15520	-.05830	.02130	.23770	.14240	.04180	-.00490
2.498	-2.110	-.01320	.01190	.07720	-.03000	.01040	.23730	.11640	.03470	-.00320
2.498	-.060	-.01010	.01310	.00220	-.00320	.00390	.23700	.11060	.02760	-.00140
2.498	1.990	-.00690	.01610	-.07630	.02520	-.01040	.23670	.06930	.02070	.00070
2.498	4.040	-.00630	.01630	-.15170	.05340	-.02150	.23440	.05350	.01710	.00200
2.498	6.100	-.00580	.01540	-.24000	.08590	-.03470	.23450	.03240	.01350	.00090
2.498	7.130	-.00650	.01490	-.28390	.10220	-.04080	.23600	.02760	.01130	-.00010
	GRADIENT	.00112	.00132	-.03734	.01356	-.00518	-.00035	-.01095	-.00307	.00086

AMES 87-710 IA12C OL T1 S1 (RBZ099) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 4.000 RUDDER = .000

RUN NO. 99/ 0 RN/L = 2.92 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
2.498	-7.820	-.45940	.24350	.14490	.00360	.02080	.24770	-.01780	-.01430	-.00330
2.498	-5.800	-.33790	.23810	.10090	.00050	.01700	.24130	.00990	-.00420	-.00300
2.498	-3.820	-.22830	.23370	.06330	-.00210	.01050	.23560	.04290	.00670	-.00280
2.498	-1.820	-.13150	.23260	.03550	-.00520	.00690	.23290	.07900	.01810	-.00210
2.498	.180	-.04180	.22760	.01190	-.00880	-.00050	.22960	.11630	.02980	-.00190
2.498	2.140	.03900	.22090	-.00810	-.01220	-.00800	.22680	.14540	.04010	-.00210
2.498	4.170	.12910	.21850	-.03410	-.01660	-.01450	.22440	.17640	.05330	-.00290
2.498	6.280	.22880	.21550	-.06780	-.02230	-.02230	.22680	.21640	.06890	-.00450
2.498	8.230	.33220	.21390	-.10240	-.02890	-.02710	.22710	.25980	.08430	-.00720
	GRADIENT	.04440	-.00211	-.01196	-.00181	-.00325	-.00142	.01672	.00579	-.00001

AMES 87-710 IA12C OL T1 S1 (RBZ100) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 31.260 SRMPR = .916
GIMBAL = 4.000 RUDDER = .000

RUN NO. 100/ 0 RN/L = 2.90 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
2.498	-7.270	-.01900	-.00940	.26870	-.09210	.03690	.23390	.20420	.05900	-.00640
2.498	-6.240	-.01640	-.00870	.22350	-.07470	.03080	.23200	.19080	.05370	-.00670
2.498	-4.180	-.01070	-.00260	.14270	-.04700	.01950	.23160	.14640	.04120	-.00580
2.498	-2.130	-.00930	-.00140	.06580	-.02130	.00880	.23180	.12590	.03530	-.00420
2.498	-.070	-.00590	.00090	-.00430	.00080	-.00070	.22990	.10310	.02860	-.00180
2.498	1.990	-.00530	-.00980	-.07130	.02230	-.01010	.23100	.09320	.02580	-.00190
2.498	4.050	-.00710	-.01210	-.14890	.04720	-.02080	.23060	.09450	.02550	-.00340
2.498	6.110	-.00890	-.01310	-.23190	.07740	-.03290	.22840	.08290	.02610	-.00510
2.499	7.140	-.00930	-.01190	-.27650	.09400	-.03840	.23030	.08230	.02610	-.00590
	GRADIENT	.00054	-.00133	-.03519	.01127	-.00483	-.00014	-.00665	-.00199	.00034

AMES 87-710 IA12C OL T1 S1 (RBZ101) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 101/ 0 RN/L = 2.24 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02070	-.00860	.26940	-.09790	.03680	.22440	.20130	.04940	-.00860
3.002	-6.240	-.01900	-.00890	.23170	-.08480	.03120	.22010	.16380	.04510	-.00810
3.002	-4.150	-.01490	-.00490	.14990	-.05320	.02070	.21920	.14530	.03620	-.00830
3.002	-2.080	-.01330	.00020	.07180	-.02520	.00960	.22110	.11980	.02910	-.00640
3.002	.030	-.01080	.00170	-.07440	.00040	-.00030	.21980	.09790	.02250	-.00490
3.002	2.120	-.00900	.00790	-.07670	.02390	-.01030	.21930	.07650	.01840	-.00140
3.002	4.210	-.00800	.01080	-.15300	.05240	-.02110	.21680	.07220	.01240	-.00020
3.002	6.300	-.00740	.00870	-.23470	.08400	-.03330	.21930	.04300	.00920	-.00080
3.002	7.350	-.00630	.00720	-.27680	.09990	-.03840	.22160	.04950	.00860	.00000
	GRADIENT	.00087	.00187	-.03609	.01245	-.00495	-.00032	-.00907	-.00279	.00101

AMES 87-710 IA12C C1 T1 S1 (RBZ102) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 102/ 0 RN/L = 2.23 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.860	-.41870	.27130	.13820	-.00230	.02320	.23950	.00210	-.00710	-.00470
3.002	-5.880	-.32210	.26380	.10840	-.00440	.01870	.23140	.02190	-.00090	-.00500
3.002	-3.900	-.22640	.25790	.07820	-.00640	.01300	.22540	.05500	.00700	-.00500
3.002	-1.870	-.13780	.25170	.05410	-.00850	.00700	.22010	.07800	.01540	-.00500
3.002	.120	-.05900	.24990	.03580	-.01110	.00170	.21880	.09710	.02290	-.00540
3.002	2.120	.01890	.24530	.01570	-.01310	-.00210	.21460	.12090	.03050	-.00460
3.002	4.120	.10270	.24210	-.00850	-.01640	-.00790	.21210	.14180	.03880	-.00460
3.002	6.100	.18430	.24040	-.03180	-.01910	-.01170	.21050	.16300	.04820	-.00540
3.002	8.130	.26780	.23740	-.05490	-.02270	-.01430	.20910	.17700	.05530	-.00690
	GRADIENT	.04069	-.00186	-.01057	-.00123	-.00254	-.00160	.01091	.00393	.00006

AMES 87-710 IA12C C1 T1 S1 (RBZ103) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CFR = 26.860 SRMPR = .768
GIMBAL = 4.000 RUDDER = .000

RUN NO. 103/ 0 RN/L = 2.22 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.960	-.40500	.22860	.12310	-.00120	.01540	.23470	.00580	-.00700	-.00540
3.002	-5.880	-.30200	.21820	.08770	-.00370	.00860	.22660	.03410	.00060	-.00520
3.002	-3.870	-.20800	.20720	.06040	-.00540	.00180	.21910	.05860	.00940	-.00480
3.002	-1.880	-.11640	.20410	.03360	-.00790	-.00250	.21480	.07630	.01820	-.00420
3.002	.120	-.03340	.19770	.01360	-.01010	-.00600	.21070	.10290	.02690	-.00390
3.002	2.110	.04190	.19330	-.00390	-.01180	-.00770	.20650	.12450	.03390	-.00270
3.002	4.130	.12340	.18790	-.02640	-.01500	-.01440	.20210	.14480	.04240	-.00290
3.002	6.160	.21190	.18400	-.05400	-.01820	-.01970	.20160	.16680	.05270	-.00380
3.002	8.150	.29550	.18090	-.07820	-.02030	-.02260	.19920	.18140	.06000	-.00520
	GRADIENT	.04107	-.00247	-.01056	-.00118	-.00188	-.00212	.01104	.00409	.00026

AMES 87-710 IA12C O1 T1 S1 (RBZ104) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 4.000 RUDDER = .000

RUN NO. 104/ 0 RN/L = 2.21 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.300	-.01820	-.01000	.27180	-.09070	.03620	.21970	.18720	.05230	-.00870
3.002	-6.250	-.01690	-.00980	.23350	-.07790	.03290	.218[illegible]	.15000	.04880	-.00820
3.002	-4.160	-.01270	-.00970	.15350	-.04740	.01990	.21410	.13160	.03860	-.00830
3.002	-2.080	-.01100	-.00720	.07900	-.02290	.00980	.21480	.11570	.03280	-.00610
3.002	.020	-.00840	-.00560	.01200	-.00420	.00080	.21230	.09200	.02790	-.00320
3.002	2.120	-.00680	-.01100	-.05930	.01520	-.00880	.21290	.08580	.02630	-.00170
3.002	4.210	-.00650	-.01400	-.13060	.03980	-.02040	.21290	.08[illegible]50	.02260	-.00250
3.002	6.30[illegible]	-.00790	-.01380	-.21050	.07130	-.03030	.21580	.15520	.01720	-.00420
3.002	7.340	-.00710	-.01230	-.24990	.08480	-.03730	.21700	.06340	.01980	-.00320
	GRADIENT	.00079	-.00059	-.03357	.01016	-.00474	-.00021	-.00655	-.00184	.00076

AMES 87-710 IA12C O1 T1 S1 (RBZ105) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 105/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.670	-.02530	-.01510	.28330	-.10080	.03680	.21230	.13860	.04170	-.00980
3.499	-6.580	-.02360	-.01400	.24140	-.08560	.03020	.21130	.11320	.03710	-.00970
3.499	-4.380	-.02040	-.01000	.16160	-.05740	.01910	.21020	.09470	.03120	-.00780
3.499	-2.200	-.01950	-.00770	.08810	-.02900	.01000	.20950	.08380	.02690	-.00840
3.499	-.020	-.01800	-.00530	.01500	-.00380	.00000	.20730	.06440	.02230	-.00580
3.499	2.180	-.01640	.00060	-.05560	.02040	-.00880	.20780	.06780	.01910	-.00250
3.499	4.350	-.01560	.00350	-.13340	.04810	-.01900	.20860	.04710	.01510	.00050
3.499	6.590	-.01410	.00130	-.20890	.07560	-.02820	.20640	.04550	.00920	.00040
3.499	7.630	-.01410	.00070	-.24530	[illegible]	-.03460	.20810	.04830	.00830	.00010
	GRADIENT	.00058	.00132	-.03359	.0119	-.00435	-.00018	-.00919	-.00181	.00103

AMES 87-710 IA12C OL T1 S1 (RBZ106) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 4.000 RUDDER = .000

RUN NO. 106/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.750	-.37060	.25050	.11850	-.01510	.01080	.23360	.00780	-.00340	-.00590
3.499	-5.780	-.28150	.24080	.09390	-.01670	.00770	.22270	.02480	.00360	-.00580
3.499	-3.760	-.19610	.23400	.07040	-.01820	.00400	.21640	.03350	.01010	-.00550
3.499	-1.740	-.11670	.22860	.04930	-.01990	.00010	.21110	.05060	.01630	-.00540
3.499	.250	-.04090	.22450	.03260	-.02150	-.00380	.20740	.06130	.02180	-.00570
3.499	2.260	.03360	.22020	.01390	-.02260	-.00550	.20290	.07710	.02780	-.00470
3.499	4.250	.10750	.21700	-.00520	-.02440	-.00900	.19990	.10680	.03510	-.00390
3.499	6.291	.17710	.21400	-.02500	-.02760	-.01190	.19800	.11900	.03980	-.00460
3.499	8.240	.25130	.21180	-.04960	-.03120	-.01110	.19680	.14160	.04740	-.00470
	GRADIENT	.03784	-.00212	-.00933	-.00075	-.00163	-.00206	.00864	.00287	.00019

AMES 87-710 IA12C OL T1 S1 (RBZ107) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CFR = 23.860 SRMPR = .826
GIMBAL = 4.000 RUDDER = .000

RUN NO. 107/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.730	-.31390	.21320	.07180	-.01740	.00110	.22610	.02850	-.00320	-.00670
3.499	-5.720	-.25210	.19400	.06290	-.01360	-.00580	.21450	.04570	.00460	-.00620
3.499	-3.730	-.17020	.18170	.04110	-.01990	-.00920	.20520	.06220	.01210	-.00520
3.499	-1.740	-.08920	.17600	.01760	-.02160	-.01280	.20180	.08090	.01960	-.00470
3.499	.270	-.01390	.17080	.00190	-.02330	-.01540	.19480	.09320	.02680	-.00430
3.499	2.240	.05610	.16640	-.01420	-.02390	-.01740	.18990	[illegible]580	.03300	-.00280
3.499	4.280	.12350	.16090	-.03040	-.02680	-.02200	.18540	.14360	.03840	-.00230
3.499	6.310	.19100	.15770	-.04600	-.02720	-.02360	.18050	.15410	.04260	-.00210
3.499	8.270	.27030	.15710	-.07570	-.02970	-.02690	.13300	.17270	.05170	-.00320
	GRADIENT	.03686	-.00257	-.00876	-.00081	-.00151	-.00258	.01040	.00331	.00039

AMES 87-710 IA12C C1 T1 S1 (RBZ108) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 23.860 SRMPR = .826
GIMBAL = 4.000 RUDDER = .00

RUN NO. 108/ 0 RN/L = 1.73 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.650	-.03250	-.01820	.24560	-.07300	.03330	.20220	.15280	.04180	-.00980
3.499	-6.570	-.03040	-.01790	.20780	-.06090	.02800	.20240	.13810	.03710	-.00990
3.499	-4.390	-.02660	-.01690	.14020	-.04130	.01980	.20110	.11810	.03130	-.00860
3.499	-2.200	-.02490	-.01530	.06690	-.01440	.00740	.19590	.10310	.02730	-.00810
3.499	-.010	-.02310	-.01600	.00540	.00090	.00000	.19500	.09300	.02670	-.00470
3.499	2.160	-.01830	-.01720	-.05320	.01660	-.00870	.19440	.09340	.02270	-.00100
3.499	4.350	-.01770	-.01720	-.12870	.04190	-.01810	.19760	.09860	.01920	.00030
3.499	6.530	-.01660	-.01010	-.18960	.05830	-.02780	.19880	.05300	.00460	.00220
3.499	7.630	-.01840	-.01170	-.22960	.07110	-.03080	.20061	.04520	.00510	.00080
	GRADIENT	.00112	-.00318	-.03012	.00904	-.00418	-.00039	-.00246	-.00132	.00114

AMES 87-710 IA12C C1 T1 S3 (RBZ109) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CPR = 26.860 SRMPR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO 109/ 0 RN/L = 2.31 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.910	-.43370	.23140	.12970	-.01760	.01740	.23030	.01280	-.00730	-.00430
3.002	-5.900	-.33430	.22250	.09740	-.01870	.01400	.22340	.04460	.00000	-.00410
3.002	-3.890	-.23670	.21550	.06520	-.01990	.00780	.21940	.06890	.00820	-.00350
3.002	-1.910	-.14820	.21130	.03891	-.02130	.00240	.21540	.08590	.01710	-.00330
3.002	.110	-.06530	.20620	.01990	-.02280	-.00140	.21100	.11290	.02580	-.00300
3.002	2.090	.00870	.20040	.00180	-.02340	-.00390	.20640	.12820	.03300	-.00200
3.002	4.110	.06190	.19380	-.02110	-.02660	-.00940	.20250	.15420	.04130	-.00220
3.002	6.090	.17260	.19360	-.04450	-.02920	-.01160	.20290	.17320	.05060	-.00300
3.002	8.110	.25440	.18840	-.06760	-.03250	-.01490	.20010	.13820	.05060	-.00460
	GRADIENT	.04066	-.00272	-.01048	-.00080	-.00204	-.00214	.01065	.00410	.00019

AMES 87-710 IA12C OI T1 S3 (RBZ110) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1326.0000 IN. YMRP = .0000 IN.
BREF = 1326.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 26.880 SRMPR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. 110/ 0 RN/L = 2.28 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02630	-.00670	.25560	-.08750	.03490	.21550	.18820	.04960	-.00870
3.002	-6.240	-.02470	-.00670	.21180	-.07210	.02950	.21480	.16140	.04570	-.00830
3.002	-4.150	-.02070	-.00570	.14190	-.04780	.02070	.21120	.13170	.03610	-.00840
3.002	-2.080	-.01850	-.00290	.06340	-.02080	.00840	.21230	.12300	.03090	-.00570
3.002	.030	-.01590	-.00100	-.00580	.00090	-.00290	.21090	.09800	.02560	-.00310
3.002	2.120	-.01420	-.00580	-.07690	.02310	-.01090	.21150	.08550	.02320	-.00180
3.002	4.220	-.01300	-.00570	-.15080	.04950	-.02060	.21070	.07540	.01940	-.00230
3.002	6.300	-.01470	-.01010	-.22930	.07450	-.03170	.21390	.06450	.01710	-.00430
3.002	7.350	-.01460	-.00930	-.27150	.09310	-.03740	.21490	.07000	.01670	-.00360
	GRADIENT	.00064	-.00043	-.03469	.01140	-.00443	-.00009	-.00716	-.00195	.00078

AMES 87-710 IA12C OI T1 S3 (RBZ111) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1326.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CPR = 23.880 SRMPR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 111/ 0 RN/L = 1.78 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.03190	-.01030	.23180	-.07110	.03180	.20320	.15750	.03940	-.01060
3.499	-6.370	-.03020	-.00980	.18850	-.05620	.02440	.20010	.14550	.03520	-.01010
3.499	-4.390	-.02780	-.00950	.13050	-.04120	.01480	.19820	.12620	.03090	-.00970
3.499	-2.200	-.02570	-.00550	.05700	-.01610	.00590	.19540	.12400	.02550	-.00780
3.499	-.020	-.02400	-.00540	-.00540	.00310	-.00050	.19310	.11160	.02420	-.00440
3.499	2.170	-.02030	-.00910	-.07410	.02380	-.01160	.19690	.11490	.02130	.00180
3.499	4.350	-.01910	-.01080	-.13920	.04370	-.02000	.19490	.09530	.01340	-.00120
3.499	6.540	-.01880	-.00400	-.20980	.06590	-.02750	.19880	.06380	.00450	.00100
3.499	7.630	-.01930	-.00450	-.24930	.07950	-.03330	.20020	.05710	.00290	-.00020
	GRADIENT	.00104	-.00028	-.03069	.00980	-.00415	.00011	-.00324	-.00179	.00105

AMES 87-710 IA12C CI T1 S3 (RB2112) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CFR = 23.860 SRMPR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 112/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.760	-.39610	.20750	.10350	-.01750	.00370	.22350	.02320	-.00380	-.00810
3.499	-5.760	-.31190	.19570	.08050	-.01890	.00180	.21230	.04120	.00370	-.00730
3.499	-3.770	-.22940	.18730	.05760	-.02020	-.00070	.20490	.06090	.01040	-.00620
3.499	-1.750	-.14110	.18230	.03240	-.02160	-.00350	.19970	.08180	.01740	-.00560
3.499	.250	-.06810	.17410	.01610	-.02380	-.00450	.19210	.09740	.02390	-.00520
3.499	2.250	.00040	.16900	.00180	-.02430	-.00500	.18780	.12000	.03010	-.00390
3.499	4.240	.06970	.16390	-.01420	-.02460	-.00890	.18290	.13400	.03490	-.00220
3.499	6.220	.13940	.16260	-.03270	-.02790	-.01000	.18180	.14170	.04070	-.00330
3.499	8.250	.21800	.16030	-.06090	-.02990	-.01530	.18400	.16100	.04490	-.00490
	GRADIENT	.03695	-.00300	-.00876	-.00056	-.00369	-.00279	.00921	.00304	.00090

AMES 87-710 IA12C CI T1 S3 (RB2113) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CFR = 23.860 SRMPR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 113/ 0 RN/L = 1.77 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.03060	-.01060	.23100	-.07060	.03160	.20040	.14800	.03940	-.01130
3.499	-6.570	-.02830	-.00980	.19520	-.05960	.02840	.19910	.12050	.03570	-.01120
3.499	-4.390	-.02580	-.00960	.12840	-.04090	.01550	.19850	.10590	.03080	-.01080
3.499	-2.200	-.02340	-.00800	.05740	-.01800	.00850	.19540	.09490	.02610	-.00860
3.499	-.010	-.02150	-.00470	-.00500	.00260	.00110	.19530	.08480	.02380	-.00530
3.499	2.170	-.01840	-.00890	-.07350	.02330	-.00960	.19410	.08720	.02210	-.00300
3.499	4.350	-.01670	-.00930	-.14410	.04710	-.02050	.19540	.08800	.01520	-.00130
3.499	6.530	-.01700	-.00630	-.21340	.06890	-.02710	.19540	.08210	.00710	-.00080
3.499	7.630	-.01590	-.00220	-.25160	.08160	-.03460	.19800	.08080	.00290	-.00040
	GRADIENT	.00106	-.00010	-.03093	.00985	-.00412	-.00034	-.00199	-.00152	.00113

AMES 87-710 IA12C C1 T1 S2 (RBZ114) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 114/ 0 RN/L = 2.33 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.900	-.44030	.27990	.13960	-.01920	.02480	.24960	.03380	-.00780	-.00320
3.002	-5.890	-.34000	.23830	.10920	-.01990	.01940	.23800	.06230	-.00220	-.00330
3.002	-3.890	-.24350	.26290	.08040	-.02110	.01410	.23510	.07980	.00580	-.00320
3.002	-1.890	-.15580	.25890	.05770	-.02270	.00980	.23170	.09710	.01390	-.00320
3.002	.100	-.07960	.25430	.04070	-.02430	.00350	.22750	.12130	.02220	-.00370
3.002	2.090	-.00280	.24850	.02290	-.02560	-.00080	.22240	.13230	.02890	-.00350
3.00	4.110	.07910	.24630	-.00060	-.02800	-.00530	.22060	.15710	.03680	-.00380
3.002	6.120	.16440	.24450	-.02470	-.03040	-.01010	.21990	.17690	.04690	-.00430
3.002	8.120	.25170	.24160	-.05180	-.03330	-.01520	.21820	.19330	.05690	-.00540
	GRADIENT	.03995	-.00218	-.00985	-.00084	-.00241	-.00192	.00950	.00385	-.00008

AMES 87-710 IA12C C1 T1 S2 (RBZ115) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 115/ 0 RN/L = 2.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02700	-.00570	.26130	-.09450	.03650	.23120	.20760	.04870	-.00670
3.002	-6.240	-.02540	-.00510	.21930	-.07800	.03110	.22930	.19840	.04530	-.00710
3.002	-4.150	-.02040	-.00360	.14300	-.04960	.01980	.22620	.13200	.03510	-.00670
3.002	-2.060	-.01810	.00260	.06550	-.02220	.00870	.22770	.11620	.02820	-.00620
3.002	.030	-.01570	.00460	-.00680	.00110	-.00130	.22710	.10070	.02230	-.00400
3.002	2.130	-.01360	.01060	-.07930	.02430	-.01190	.22740	.07870	.01770	-.00080
3.002	4.210	-.01240	.01140	-.15520	.05180	-.02160	.22670	.05580	.01070	-.00010
3.002	6.300	-.01140	.00980	-.23300	.08080	-.03280	.22780	.05580	.00980	.00100
3.002	7.350	-.01100	.00820	-.27760	.09830	-.03820	.23080	.04980	.00870	.00080
	GRADIENT	.00098	.00182	-.03545	.01192	-.00495	.00003	-.00908	-.00284	.00089

AMES 87-710 IA12C OL T1 S2 (RBZ116) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CRR = 26.860 SRMRR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. 116/ 0 RN/L = 2.27 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02170	-.00680	.24980	-.08340	.03330	.22330	.17900	.05000	-.00730
3.002	-6.240	-.02040	-.00720	.20940	-.06830	.02980	.21810	.17790	.04520	-.00820
3.002	-4.150	-.01710	-.00610	.13610	-.04400	.01820	.21800	.13510	.03550	-.00700
3.002	-2.080	-.01540	-.00490	.05970	-.01880	.00840	.21430	.12580	.03000	-.00570
3.002	.030	-.01390	-.00370	-.01000	.00270	-.00010	.21370	.11000	.02610	-.00270
3.002	2.120	-.01210	-.00950	-.07790	.02320	-.00990	.21510	.10230	.02480	-.00170
3.002	4.210	-.01050	-.01110	-.15160	.04840	-.01990	.21700	.08610	.01950	-.00250
3.002	6.310	-.01340	-.01070	-.22650	.07500	-.03070	.21910	.08480	.02020	-.00270
3.002	7.390	-.01470	-.01030	-.26690	.08900	-.03570	.22040	.08800	.01930	-.00320
	GRADIENT	.00079	-.00070	-.03411	.01084	-.00452	.00013	-.00580	-.00178	.00062

AMES 87-710 IA12C OL T1 S2 (RBZ117) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CRR = 26.860 SRMRR = .768
GIMBAL = 1.000 RUDDER = .000

RUN NO. 117/ 0 RN/L = 2.25 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.920	-.41920	.22400	.12190	-.00320	.01500	.23420	.01520	-.00630	-.00520
3.002	-5.930	-.31740	.21530	.09140	-.00520	.00830	.22820	.03930	.00100	-.00450
3.002	-3.940	-.21780	.20550	.06090	-.00710	.00280	.22090	.06220	.00950	-.00390
3.002	-1.930	-.12790	.19970	.03550	-.00920	-.00170	.21680	.08400	.01830	-.00340
3.002	.090	-.04550	.19670	.01700	-.01130	-.00350	.21200	.10910	.02690	-.00320
3.002	2.070	.02830	.19000	.00140	-.01280	-.00580	.20760	.11640	.03290	-.00270
3.002	4.070	.10680	.18250	-.01880	-.01600	-.01020	.20230	.14070	.04080	-.00290
3.002	6.080	.19050	.18160	-.04320	-.01890	-.01430	.20270	.16450	.05090	-.00360
3.002	8.080	.27990	.18030	-.07170	-.02250	-.02440	.20380	.19060	.06040	-.00590
	GRADIENT	.04023	-.00278	-.00967	-.00107	-.00148	-.00226	.00946	.00384	.00013

AMES 87-710 IA12C C1 T1 S2 (RBZ118) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 118/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.760	-.39160	.25160	.12040	-.01680	.01510	.24480	.06760	-.00390	-.00600
3.499	-5.770	-.30550	.24740	.09880	-.01760	.01060	.23390	.06420	.00190	-.00580
3.499	-3.750	-.21850	.24010	.07520	-.01830	.00700	.22480	.06940	.00730	-.00590
3.499	-1.770	-.13470	.23260	.05420	-.01830	.00370	.21940	.07850	.01330	-.00590
3.499	.280	-.05810	.22920	.03850	-.02000	-.00060	.21500	.09510	.01920	-.00650
3.499	2.250	.00810	.22370	.02370	-.02120	-.00270	.21030	.10630	.02370	-.00540
3.499	4.240	.08010	.22030	.00440	-.02480	-.00540	.20900	.12710	.02920	-.00510
3.499	6.250	.15650	.21800	-.01990	-.02790	-.00790	.20690	.14990	.03750	-.00500
3.499	8.150	.23590	.21380	-.04310	-.03120	-.00750	.20320	.16490	.04560	-.00560
	GRADIENT	.03704	-.00243	-.00861	-.00078	-.00156	-.00204	.00717	.00271	.00010

AMES 87-710 IA12C C1 T1 S2 (RBZ119) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 119/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02510	-.01010	.25600	-.08960	.03170	.22060	.15790	.03900	-.00990
3.499	6.560	-.02780	-.00920	.21630	-.07590	.03070	.22060	.14580	.03530	-.00990
3.499	-4.380	-.02350	-.00690	.13490	-.04700	.01800	.21650	.11060	.02810	-.00880
3.499	-2.200	-.02150	-.00330	.06430	-.02190	.00890	.21560	.10460	.02300	-.00900
3.499	-.020	-.01980	-.00090	-.01030	.00390	-.00170	.21420	.07670	.01900	-.00640
3.499	2.170	-.01850	.00480	-.07820	.02670	-.01000	.21510	.08110	.01560	-.00290
3.499	4.350	-.01710	.00710	-.15190	.05290	-.01930	.21360	.08380	.00990	-.00040
3.499	6.540	-.01570	.00530	-.22620	.07730	-.02940	.21770	.06480	.00690	-.00060
3.499	7.630	-.01590	.00420	-.26490	.09100	-.03530	.22170	.06070	.00610	-.00090
	GRADIENT	.00072	.00165	-.03277	.01138	-.00428	-.00029	-.00353	-.00201	.00105

AMES 87-710 IA12C C1 T1 S2 (RBZ120) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 1.000
CFR = 23.860 SRMFR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 120/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.660	-.03030	-.01190	.22420	-.06540	.02950	.21230	.17990	.04100	-.00980
3.499	-6.570	-.02900	-.01190	.13220	-.05610	.02710	.20790	.16000	.03700	-.00980
3.499	-4.380	-.02600	-.01160	.11920	-.03480	.01760	.20350	.14390	.02950	-.00840
3.499	-2.200	-.02390	-.00560	.05430	-.01480	.00590	.20290	.13150	.02540	-.00690
3.499	-.010	-.01990	-.00490	-.01050	.00390	-.00320	.19910	.12750	.02160	-.00250
3.499	2.170	-.01690	-.00960	-.06890	.01970	-.00910	.19980	.11020	.01690	.00100
3.499	4.350	-.01750	-.00990	-.13460	.03850	-.01810	.20260	.09050	.01060	.00150
3.499	6.540	-.01960	-.00690	-.20650	.05910	-.02680	.20840	.07270	.00640	.00130
3.499	7.630	-.02080	-.00630	-.24340	.07150	-.03160	.21030	.07270	.00510	.00010
	GRADIENT	.00110	-.00003	-.02890	.00830	-.00396	-.00022	-.00587	-.00212	.00125

AMES 87-710 IA12C C1 T1 S2 (RBZ121) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 1.000
CFR = 23.860 SRMFR = .826
GIMBAL = 1.000 RUDDER = .000

RUN NO. 121/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.800	-.36700	.20330	.08820	-.01450	-.00260	.22620	.04850	-.05220	-.00710
3.499	-5.790	-.28530	.19220	.07010	-.01520	-.00540	.21620	.07800	.00440	-.00630
3.499	-3.790	-.20200	.17950	.04800	-.01690	-.00750	.20830	.09260	.01140	-.00530
3.499	-1.810	-.11700	.17640	.02540	-.01720	-.00610	.20580	.09930	.01770	-.00400
3.499	.220	-.04790	.17160	.01410	-.01690	-.00520	.19790	.11380	.02200	-.00320
3.499	2.190	.01680	.16200	.00390	-.01540	-.00720	.19020	.11510	.02270	-.00070
3.499	4.220	.08610	.16110	-.01140	-.01790	-.01220	.18970	.12980	.02750	-.00080
3.499	6.240	.16120	.15690	-.03560	-.01980	-.02070	.18630	.15150	.03470	-.00250
3.499	8.220	.24730	.15690	-.06550	-.02450	-.02410	.18900	.17750	.04710	-.00360
	GRADIENT	.03546	-.00256	-.00701	-.00001	-.00053	-.00264	.00451	.00186	.00061

AMES 87-710 IA12C OI T1 (RBZ122) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 122/ 0 RN/L = 1.81 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.730	-.28130	.21980	.10080	-.03360	.02090	.20820	-.04000	-.02750	-.00590
3.499	-5.740	-.22150	.21200	.08180	-.03510	.01590	.20040	-.01360	-.01880	-.00540
3.499	-3.740	-.16620	.20470	.06520	-.03690	.01080	.19350	.00530	-.01070	-.00450
3.499	-1.730	-.11300	.19880	.04910	-.03850	.00630	.18740	.03590	-.00160	-.00370
3.499	.250	-.06320	.19390	.03330	-.03980	.00160	.18340	.06000	.00830	-.00320
3.499	2.250	-.01260	.18930	.01620	-.03900	-.00400	.17930	.08970	.02020	-.00290
3.499	4.250	.04190	.18550	-.00290	-.04110	-.01070	.17560	.11660	.03340	-.00380
3.499	6.220	.09280	.18290	-.02160	-.04410	-.01580	.17310	.15100	.04670	-.00360
3.499	8.240	.14740	.18250	-.04190	-.04680	-.02210	.17450	.18640	.06110	-.00340
	GRADIENT	.02580	-.00240	-.00847	-.00045	-.00265	-.00220	.01385	.00551	.00011

AMES 87-710 IA12C OI T1 (RBZ123) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 123/ 0 RN/L = 1.77 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.660	-.03140	-.00520	.26340	-.09420	.04300	.18820	.12000	.03170	-.00450
3.499	-6.570	-.03000	-.00430	.21990	-.07850	.03570	.18700	.10550	.02800	-.00460
3.499	-4.380	-.02720	-.00190	.14350	-.05070	.02390	.18330	.09180	.02120	-.00520
3.499	-2.200	-.02400	.00020	.06590	-.02250	.01190	.18090	.05650	.01470	-.00430
3.499	-.010	-.02230	.00320	-.00510	.00240	-.00100	.18080	.05030	.00900	-.00440
3.499	2.170	-.02040	.00580	-.07560	.02700	-.01330	.18010	.02280	.00380	-.00380
3.499	4.350	-.02150	.00690	-.15110	.05370	-.02440	.18130	.01560	.00380	-.00260
3.499	6.530	-.02130	.00780	-.22980	.08170	-.03730	.18330	.01530	.00290	-.00290
3.499	7.630	-.02120	.00790	-.26980	.09630	-.04310	.18400	.01520	.00290	-.00310
	GRADIENT	.00071	.00106	-.03347	.01183	-.00558	-.00022	-.00852	-.00209	.00026

AMES 87-710 IA12C C1 T1 (RBZ124) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = 3.000
CPR = 23.860 GIMBAL = 1.000
RUDDER = .000

RUN NO. 124/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.660	-.02920	-.00390	.25870	-.09180	.04200	.18150	.12420	.03150	-.00520
3.499	-6.570	-.02880	-.00300	.21870	-.07720	.03500	.18150	.11550	.02770	-.00530
3.499	-4.380	-.02720	-.00110	.14100	-.04940	.02360	.17810	.08570	.02090	-.00570
3.499	-2.200	-.02700	.00140	.06460	-.02190	.01100	.17530	.05910	.01420	-.00590
3.499	-.020	-.02590	.00320	-.00660	.00280	-.00080	.17650	.05020	.00850	-.00550
3.499	2.170	-.02450	.00380	-.07840	.02810	-.01200	.17540	.03770	.00480	-.00370
3.499	4.350	-.02450	.00460	-.15020	.05260	-.02580	.17730	.03740	.00440	-.00270
3.499	6.540	-.02390	.00500	-.23100	.08140	-.03660	.17940	.04130	.00350	-.00300
3.499	7.630	-.02240	.00470	-.27110	.09600	-.04350	.18140	.03460	.00360	-.00330
	GRADIENT	.00036	.00063	-.03323	.01164	-.00558	-.00007	-.00540	-.00194	.00038

AMES 87-710 IA12C C1 T1 (RBZ125) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 3.000
CPR = 23.860 GIMBAL = 1.000
RUDDER = .000

RUN NO. 125/ 0 RN/L = 1.74 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.780	-.28620	.21350	.09650	-.01290	.02360	.20320	-.06560	-.02640	-.00800
3.499	-5.740	-.22400	.20370	.07740	-.01550	.01800	.19350	-.04480	-.01750	-.00780
3.499	-3.740	-.16920	.19580	.06150	-.01760	.01330	.18530	-.02360	-.00950	-.00680
3.499	-1.770	-.11680	.19000	.04590	-.01930	.00950	.18000	.00020	-.00040	-.00580
3.499	.240	-.06630	.18530	.03020	-.02160	.00480	.17580	.02450	.00970	-.00520
3.499	2.200	-.01480	.18140	.01380	-.02410	-.00120	.17270	.04090	.02120	-.00490
3.499	4.220	.03980	.17800	-.00480	-.02700	-.00780	.16900	.09210	.03450	-.00540
3.499	6.200	.09120	.17520	-.02310	-.03020	-.01290	.16740	.11510	.04740	-.00480
3.499	8.170	.14830	.17460	-.04370	-.03350	-.01920	.16630	.15810	.06180	-.00490
	GRADIENT	.02614	.00222	-.00828	-.00119	-.00264	-.00201	.01268	.00551	.00019

AMES 87-710 IA12C C3 T1 (RBZ126) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 3.000
CFR = 23.860 GIMBAL = 1.000
RUDDER = .000

RUN NO. 126/ 0 RN/L = 1.76 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.750	-.25230	.21230	.08430	-.02680	.02070	.20130	-.03080	-.02680	-.00730
3.499	-5.750	-.19070	.20270	.06530	-.02840	.01520	.19190	-.01930	-.01770	-.00680
3.499	-3.750	-.13620	.19530	.04910	-.03010	.01000	.18530	.00480	-.00970	-.00600
3.499	-1.750	-.08370	.18930	.03390	-.03160	.00620	.17860	.02790	-.00090	-.00500
3.499	.250	-.03440	.18410	.01830	-.03350	.00160	.17380	.05180	.00950	-.00450
3.499	2.180	.01820	.18070	.00200	-.03590	-.00460	.17090	.07970	.02070	-.00410
3.499	4.190	.07030	.17790	-.01580	-.03840	-.01140	.16780	.11590	.03340	-.00480
3.499	6.210	.12240	.17560	-.03510	-.04150	-.01670	.16610	.15490	.04700	-.00430
3.499	8.190	.18110	.17520	-.05540	-.04430	-.02290	.167[illegible]	.18730	.06100	-.00420
	GRADIENT	.02595	-.00223	-.00815	-.00103	-.00270	-.00215	.01381	.00543	.00017

AMES 87-710 IA12C C4 T1 (RBZ127) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = 3.000
CFR = 23.860 GIMBAL = 1.000
RUDDER = .000

RUN NO. 127/ 0 RN/L = 1.78 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.730	-.27700	.21600	.09580	-.03520	.02090	.20500	-.00340	-.02750	-.00590
3.499	-5.760	-.21490	.20800	.07690	-.03870	.01460	.19800	.01990	-.01830	-.00500
3.499	-3.740	-.16130	.19980	.06140	-.03740	.00880	.18920	.04230	-.01020	-.00450
3.499	-1.800	-.11090	.19370	.04720	-.03850	.00620	.18360	.05840	-.00090	-.00350
3.499	.210	-.05930	.18980	.03140	-.03910	.00060	.18020	.09560	.00760	-.00290
3.499	2.180	-.00840	.18470	.01500	-.04140	-.00370	.17540	.09420	.02000	-.00280
3.499	4.200	.04430	.18240	-.00340	-.04330	-.01200	.17420	.13460	.03150	-.00350
3.499	6.190	.09710	.17890	-.02270	-.04490	-.01360	.17010	.15080	.04520	-.00300
3.499	8.210	.15310	.17840	-.04290	-.04600	-.02060	.17020	.18730	.05640	-.00390
	GRADIENT	.02587	-.00220	-.00815	-.00074	-.0026[illegible]	-.00192	.01111	.00525	.00014

AMES 87-710 IA12C OI T1 S1 M=3.5 SOLID PLUMES (RBZ128) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 128/ 0 RN/L = 2.29 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.002	-7.850	-.45650	.21130	.12350	-.01710	.00980	.22940	.05400	-.00820	-.00480
3.002	-5.880	-.36100	.20130	.09450	-.01780	.00330	.22230	.07480	.00050	-.00450
3.002	-3.860	-.26700	.19450	.06400	-.02450	-.00180	.21770	.10490	.01000	-.00330
3.002	-1.860	-.17210	.19200	.03610	-.02080	-.00430	.21400	.12480	.01940	-.00330
3.002	.12	-.09330	.18450	.01700	-.02270	-.00550	.20950	.14960	.02910	-.00250
3.002	2.120	-.01770	.17740	-.00080	-.02140	-.00590	.20350	.16900	.03440	-.00070
3.002	4.150	.06520	.17030	-.02420	-.02310	-.01000	.19790	.17860	.04280	-.00070
3.002	6.120	.14790	.16620	-.04650	-.02510	-.01350	.19690	.20420	.05180	-.00130
3.002	8.140	.24120	.16290	-.07800	-.02740	-.02200	.19510	.22430	.06170	-.00320
	GRADIENT	.04094	-.00315	-.01067	.00011	-.00087	-.00251	.00928	.00403	.00039

AMES 87-710 IA12C OI T1 S1 M=3.5 SOLID PLUMES (RBZ129) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 129/ 0 RN/L = 2.26 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.002	-7.290	-.02490	-.01060	.23490	-.07520	.03180	.21710	.21320	.04900	-.00980
3.002	-6.240	-.02320	-.01040	.19250	-.06190	.02800	.21530	.17760	.04530	-.00940
3.002	-4.150	-.01990	-.01030	.12020	-.03520	.01730	.21160	.15490	.03670	-.00930
3.002	-2.060	-.01730	-.00540	.04890	-.01220	.00780	.21050	.14900	.03110	-.00600
3.002	.030	-.01470	-.00510	-.01640	.00480	-.00090	.20970	.12810	.02860	-.00280
3.002	2.120	-.01370	-.01310	-.07980	.02160	-.00940	.20750	.13870	.02670	-.00250
3.002	4.220	-.01430	-.01490	-.14880	.04350	-.01940	.21140	.13500	.02630	-.00280
3.002	6.310	-.01210	-.01340	-.22120	.06930	-.03050	.21660	.11490	.02050	-.00340
3.002	7.350	-.01280	-.01280	-.25860	.08050	-.03560	.21790	.11340	.02060	-.00340
	GRADIENT	.00071	-.00081	-.03187	.00915	-.00433	-.00016	-.00239	-.00120	.00079

AMES 87-710 IA12C O1 T1 S1 M=3.5 SOLID PLUMES (RBZ130) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

ALPHA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 130/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	BETA	CHEO	CHEI	CY	CYN	CBL	CAF	CNW	CBW	CHW
3.499	-7.680	-.02870	-.01560	.23060	-.07440	.03190	.20710	.19190	.03800	-.01240
3.499	-6.570	-.02720	-.01420	.18930	-.06050	.02690	.20640	.19660	.03420	-.01120
3.499	-4.380	-.02450	-.01290	.11910	-.03830	.01710	.20440	.15880	.03030	-.01090
3.499	-2.200	-.02250	-.00990	.04520	-.01260	.00640	.20400	.16050	.02510	-.00910
3.499	-.010	-.02110	-.00840	-.01720	.00610	-.00200	.20360	.14440	.02250	-.00550
3.499	2.170	-.01900	-.01370	-.08590	.02710	-.01100	.20420	.14130	.02170	-.00410
3.499	4.360	-.01860	-.01750	-.15450	.04900	-.02210	.20410	.13260	.01630	-.00420
3.499	6.540	-.01600	-.01170	-.22250	.07070	-.02900	.20370	.11610	.00740	-.00190
3.499	7.630	-.01580	-.01020	-.26510	.08530	-.03480	.20430	.10540	.00410	-.00190
	GRADIENT	.00070	-.00060	-.03104	.00981	-.00438	.00001	-.00328	-.00144	.00084

AMES 87-710 IA12C O1 T1 S1 M=3.5 SOLID PLUMES (RBZ131) (24 JAN 74)

REFERENCE DATA

SREF = 2690.0000 SQ.FT. XMRP = 953.0000 IN.
LREF = 1328.0000 IN. YMRP = .0000 IN.
BREF = 1328.0000 IN. ZMRP = 400.0000 IN.
SCALE = .0190

PARAMETRIC DATA

BETA = .000 POWER = .000
GIMBAL = 1.000 RUDDER = .000

RUN NO. 131/ 0 RN/L = 1.75 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	CN	CA	CLM	CHEO	CHEI	CAF	CNW	CBW	CHW
3.499	-7.730	-.37910	.21580	.09600	-.01480	.00430	.23050	.06540	-.00470	-.00880
3.499	-5.730	-.29520	.20480	.07270	-.01610	.00110	.21950	.07890	.00240	-.00830
3.499	-3.720	-.21280	.19460	.05100	-.01750	-.00290	.21380	.09820	.00900	-.00740
3.499	-1.740	-.13000	.18910	.02780	-.01940	-.00610	.20850	.11960	.01580	-.00690
3.499	.020	-.06150	.18300	.01130	-.02130	-.00800	.20300	.13560	.02190	-.00640
3.499	2.260	.01920	.17380	-.00760	-.02280	-.00920	.19510	.15760	.02890	-.00490
3.499	4.220	.08930	.16880	-.02480	-.02360	-.01220	.19150	.17270	.03380	-.00400
3.499	6.270	.16180	.16470	-.04390	-.02540	-.01520	.18960	.18350	.03990	-.00460
3.499	8.280	.24500	.16280	-.07460	-.02830	-.02140	.18900	.20780	.04980	-.00600
	GRADIENT	.03757	-.00337	-.00939	-.00077	-.00109	-.00292	.00940	.00315	.00045

APPENDIX B

Nozzle Pressure Data

Dataset Name Key

RBZA--,	Upper MPS Nozzle
RBZB--,	Lower Lefthand MPS Nozzle
RBZC--,	Lower Righthand MPS Nozzle

DATE 04 DEC 74

TABULATED SOURCE DATA -IA12C (NOZZLE PRESSURES)

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA01) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 158.2200 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = 1.000 OPR = 31.260
SRMPR = .916 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.496 ALPHA (1) = -7.900

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/C	.0560	.2320	.4060	.5600	.7540	.9280
PHI						
.000	.4561	.0060	.0116	.6471	.3354	.3993
30.000	.5441	.0060	.0499	.6841	.7092	.5907
60.000	.1801	.0037	.0087	.0038	-.0644	.0430
90.000	.2291	.0014	.0027	.0056	.0153	.0886
120.000	-.0285	.0049	-.0062	-.0026	-.0023	-.0067
150.000	-.0130	.0145	.0059	-.0096	-.0097	-.0123
180.000	-.0135	.0231	.0131	-.0008	-.0167	-.0133
210.000	-.0153	-.0073	.0033	-.0029	-.0056	-.0157
240.000	-.0313	-.0104	-.0073	-.0013	-.0021	-.0051
270.000	-.1085	-.0074	-.0063	-.1140	-.0143	-.0811
300.000	.0601	.0018	-.0145	-.0587	.1911	.1268
330.000	.1029	-.0069	-.0175	.1699	.2280	.1664
360.000	.4561	.0060	.0116	.6471	.3354	.3993

MACH (1) = 2.496 ALPHA (2) = -5.890

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/C	.0560	.2320	.4060	.5600	.7540	.9280
PHI						
.000	.4055	.0003	-.0020	.5220	.3003	.3523
30.000	.4983	.0056	.0306	.5591	.6262	.5487
60.000	.1595	.0000	.0071	-.0044	-.0593	.0030
90.000	.1681	-.0008	.0005	.0073	.0106	.0670
120.000	-.0361	.0023	-.0083	-.0060	-.0043	-.0027
150.000	-.0200	.0096	.0069	-.0144	-.0165	-.0179
180.000	-.0174	.0203	.0212	.0014	-.0222	-.0199
210.000	-.0196	-.0055	.0014	-.0064	-.0088	-.0188
240.000	-.0310	-.0133	-.0082	-.0083	-.0063	-.0061
270.000	-.0925	-.0088	-.0068	[illegible]	[illegible]	-.0605
300.000	.0558	.0008	-.0169	-.0549	.1286	.0905
330.000	.0733	-.0039	-.0217	.1438	.1892	.1284
360.000	.4055	.0003	-.0020	.5220	.3003	.3523

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DATE 04 DEC 74 TABULATED SOURCE DATA -IA12C (NOZZLE PRESSURES)

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA01)

MACH (1) = 2.498 ALPHA (3) = -3.900

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.3685	-.0060	-.0114	.4181	.2668	.3184
30.000	.4493	.0012	.0127	.4474	.5063	.4696
60.000	.1295	-.0082	.0009	-.0128	-.0548	-.0125
90.000	.1218	-.0112	-.0070	.0027	.0061	.0446
120.000	-.0363	-.0047	-.0158	-.0128	-.0099	-.0054
150.000	-.0261	.0054	.0030	-.0201	-.0277	-.0266
180.000	-.0266	.0154	.0208	.0023	-.0282	-.0308
210.000	-.0306	-.0096	-.0028	-.0099	-.0161	-.0269
240.000	-.0323	-.0217	-.0146	-.0179	-.0134	-.0120
270.000	-.0856	-.0149	-.0143	-.0041	-.0099	-.0422
300.000	.0306	-.0022	-.0190	-.0512	.0796	.0589
330.000	.0443	-.0076	-.0190	.1018	.1515	.0945
360.000	.3685	-.0060	-.0114	.4181	.2668	.3184

MACH (1) = 2.498 ALPHA (4) = -1.890

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.3241	-.0112	-.0232	.3421	.2474	.2908
30.000	.3781	-.0080	.0010	.3626	.4064	.3921
60.000	.0870	-.0132	-.0065	-.0170	-.0536	-.0249
90.000	.0662	-.0095	-.0118	-.0036	.0004	.0218
120.000	-.0443	-.0100	-.0160	-.0178	-.0200	-.0113
150.000	-.0305	-.0013	-.0021	-.0206	-.0327	-.0351
180.000	-.0351	.0164	.0147	-.0025	-.0292	-.0365
210.000	-.0370	-.0164	-.0047	-.0177	-.0234	-.0299
240.000	-.0275	-.0243	-.0222	-.0234	-.0199	-.0189
270.000	-.0691	-.0135	-.0185	-.0117	-.0105	-.0321
300.000	.0099	-.0061	-.0135	-.0461	.0418	.0299
330.000	.0242	-.0106	-.0201	.0502	.1176	.0652
360.000	.3241	-.0112	-.0232	.3421	.2474	.2908

ARC 67-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA01)

MACH (1) = 2.498 ALPHA (5) = .130

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2816	-.0135	-.0304	.2828	.2357	.2641
30.000	.3165	-.0112	-.0104	.3007	.3365	.3304
60.000	.0548	-.0138	-.0105	-.0238	-.0529	-.0276
90.000	.0592	-.0109	-.0136	-.0112	-.0063	.0044
120.000	-.0447	-.0112	-.0162	-.0215	-.0266	-.0164
150.000	-.0351	-.0076	-.0068	-.0254	-.0378	-.0412
180.000	-.0424	.0012	.0062	-.0105	-.0335	-.0400
210.000	-.0405	-.0198	-.0095	-.0208	-.0298	-.0332
240.000	-.0286	-.0275	-.0254	-.0256	-.0251	-.0243
270.000	-.0370	-.0156	-.0230	-.0162	-.0150	-.0309
300.000	-.0144	-.0113	-.0190	-.0419	.0163	.0049
330.000	.0111	-.0151	-.0204	.0147	.0825	.0408
360.000	.2816	-.0135	-.0304	.2828	.2357	.2641

MACH (1) = 2.498 ALPHA (6) = 2.080

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2474	-.0217	-.0395	.2363	.2235	.2413
30.000	.2747	-.0182	-.0184	.2266	.2946	.2907
60.000	.0260	-.0205	-.0165	-.0267	-.0515	-.0320
90.000	.0372	-.0163	-.0195	-.0156	-.0161	-.0134
120.000	-.0457	-.0162	-.0199	-.0258	-.0295	-.0240
150.000	-.0356	-.0136	-.0165	-.0279	-.0385	-.0393
180.000	-.0405	-.0091	-.0035	-.0110	-.0266	-.0287
210.000	-.0366	-.0247	-.0205	-.0193	-.0247	-.0274
240.000	-.0286	-.0304	-.0261	-.0308	-.0268	-.0261
270.000	-.0322	-.0213	-.0273	-.0227	-.0241	-.0306
300.000	-.0306	-.0204	-.0247	-.0418	.0014	-.0155
330.000	.0003	-.0223	-.0297	-.0070	.0539	.0238
360.000	.2474	-.0217	-.0395	.2363	.2235	.2413

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA01)

MACH (1) = 2.498 ALPHA (7) = 4.100

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2420	-.0197	-.0298	.1743	.2389	.2405
30.000	.2380	-.0146	-.0157	.1509	.2534	.2543
60.000	.0118	-.0183	-.0141	-.0219	-.0424	-.0318
90.000	.0135	-.0173	-.0188	-.0143	-.0145	-.0313
120.000	-.0421	-.0164	-.0243	-.0279	-.0292	-.0236
150.000	-.0347	-.0130	-.0198	-.0333	-.0402	-.0377
180.000	-.0385	-.0040	.0024	-.0138	-.0343	-.0414
210.000	-.0371	-.0229	-.0136	-.0199	-.0265	-.0292
240.000	-.0283	-.0304	-.0248	-.0292	-.0264	-.0248
270.000	-.0375	-.0217	-.0264	-.0208	-.0204	-.0204
300.000	-.0391	-.0188	-.0213	-.0330	-.0220	-.0329
330.000	.0152	-.0188	-.0248	-.0216	.0309	.0075
360.000	.2420	-.0197	-.0298	.1743	.2389	.2405

MACH (1) = 2.498 ALPHA (8) = 6.130

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2505	-.0232	-.0358	.1167	.2660	.2723
30.000	.2363	-.0193	-.0207	.1056	.2248	.2516
60.000	.0049	-.0256	-.0178	-.0281	-.0472	-.0332
90.000	-.0188	-.0206	-.0260	-.0217	-.0300	-.0498
120.000	-.0808	-.0260	-.0327	-.0371	-.0368	-.0417
150.000	-.0409	-.0314	-.0353	-.0395	-.0459	-.0405
180.000	-.0393	-.0024	-.0227	-.0312	-.0421	-.0445
210.000	-.0437	-.0312	-.0210	-.0352	-.0336	-.0363
240.000	-.0328	-.0397	-.0356	-.0351	-.0381	-.0348
270.000	-.0394	-.0249	-.0313	-.0282	-.0307	-.0376
300.000	-.0348	-.0219	-.0275	-.0336	-.0433	-.0444
330.000	.0142	-.0288	-.0226	-.0316	.0221	-.0157
360.000	.2505	-.0232	-.0358	.1167	.2660	.2723

ARC 87-710 IA12C D2 + T1 + S1 UPPER MPS NOZZLE (RBZA01)

MACH (1) = 2.496 ALPHA (9) = 8.140

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5600	.7540	.9260
PHI						
.000	.2419	-.0276	-.0293	.0953	.3114	.2936
30.000	.2006	-.0197	-.0194	.0909	.2221	.2306
60.000	.0007	-.0275	-.0187	-.0245	-.0420	-.0359
90.000	-.0208	-.0281	-.0321	-.0255	-.0291	-.0535
120.000	-.0364	-.0373	-.0412	-.0466	-.0415	-.0463
150.000	-.0442	-.0292	-.0435	-.0473	-.0525	-.0447
180.000	-.0437	.0040	-.0246	-.0421	-.0456	-.0501
210.000	-.0466	-.0317	-.0292	-.0366	-.0440	-.0439
240.000	-.0410	-.0443	-.0365	-.0416	-.0394	-.0402
270.000	-.0471	-.0260	-.0323	-.0318	-.0364	-.0374
300.000	-.0324	-.0266	-.0294	-.0367	-.0504	-.0560
330.000	-.0015	-.0254	-.0249	-.0365	.0092	-.0331
360.000	.2419	-.0276	-.0293	.0953	.3114	.2936

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RB2A02) (03 SEP 74)

REFERENCE DATA

SREF = 40.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = 1.000 OPR = 31.200
SRMPR = .916 GIMBAL = 1.000
ALPHA = .000

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.0074	-.0176	-.0154	-.0015	.0579	.0866
30.000	.0868	-.0255	-.0185	.0411	.2841	.2285
60.000	-.0132	-.0266	-.0315	-.0273	-.0422	-.0554
90.000	-.0344	-.0312	-.0330	-.0347	-.0277	-.0427
120.000	-.0443	-.0363	-.0411	-.0414	-.0465	-.0442
150.000	-.0453	-.0354	-.0441	-.0476	-.0482	-.0499
180.000	-.0486	-.0023	-.0122	-.0310	-.0428	-.0453
210.000	-.0467	-.0326	-.0238	-.0326	-.0409	-.0455
240.000	-.0464	-.0369	-.0392	-.0367	-.0374	-.0395
270.000	-.0920	-.0300	-.0265	-.0324	-.0369	-.0893
300.000	.0235	-.0275	-.0360	-.0455	.0775	.0293
330.000	.1106	-.0165	-.0144	.0730	.1411	.0337
360.000	.0074	-.0176	-.0154	-.0015	.0579	.0866

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0014	-.0153	-.0166	.0080	.1634	.1200
30.000	.1057	-.0205	-.0172	.0960	.3624	.2893
60.000	.0131	-.0220	-.0239	-.0216	-.0491	-.0700
90.000	-.0197	-.0242	-.0256	-.0254	-.0223	-.0367
120.000	-.0440	-.0282	-.0317	-.0349	-.0377	-.0366
150.000	-.0416	-.0316	-.0322	-.0387	-.0426	-.0432
180.000	-.0449	.0013	-.0053	-.0214	-.0350	-.0429
210.000	-.0426	-.0205	-.0190	-.0316	-.0350	-.0413
240.000	-.0425	-.0304	-.0306	-.0341	-.0335	-.0333
270.000	-.0858	-.0227	-.0194	-.0216	-.0354	-.0611
300.000	.0117	-.0198	-.0244	-.0395	.0865	.0140
330.000	.0844	-.0133	-.0003	.0642	.1402	.1194
360.000	-.0014	-.0153	-.0166	.0080	.1634	.1200

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA02)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.0961	-.0103	-.0140	.1130	.2517	.1484
30.000	.2335	-.0141	-.0130	.2580	.4707	.4020
60.000	.1020	-.0144	-.0150	-.0145	-.0460	-.0663
90.000	.0371	-.0144	-.0178	-.0150	-.0104	-.0143
120.000	-.0357	-.0186	-.0248	-.0262	-.0274	-.0231
150.000	-.0380	-.0140	-.0171	-.0289	-.0379	-.0398
180.000	-.0432	.0074	.0064	-.0150	-.0357	-.0419
210.000	-.0366	-.0145	-.0124	-.0225	-.0345	-.0359
240.000	-.0343	-.0225	-.0199	-.0273	-.0275	-.0270
270.000	-.0766	-.0169	-.0141	-.0152	-.0235	-.0504
300.000	-.0060	-.0148	-.0200	-.0311	.0586	-.0027
330.000	.1413	-.0116	-.0213	.0365	.1256	.0957
360.000	.0961	-.0103	-.0140	.1130	.2517	.1484

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.1669	-.0055	-.0105	.1585	.3401	.1446
30.000	.3033	-.0079	-.0125	.3293	.5655	.3921
60.000	.0538	-.0090	-.0079	-.0126	-.0450	-.0749
90.000	.0606	-.0086	-.0102	-.0079	-.0066	-.0044
120.000	-.0277	-.0157	-.0192	-.0194	-.0232	-.018[illegible]
150.000	-.0314	-.0085	-.0150	-.0286	-.0319	-.0320
180.000	-.0329	.0093	.0049	-.0140	-.0329	-.0324
210.000	-.0310	-.0097	-.0074	-.0174	-.0255	-.0295
240.000	-.0279	-.0168	-.0149	-.0170	-.0148	-.0176
270.000	-.0564	-.0119	-.0101	-.0090	-.0113	-.0318
300.000	-.0105	-.0071	-.0112	-.0258	.0578	-.0014
330.000	.1066	-.0076	-.0107	.0436	.1168	.0605
360.000	.1669	-.0055	-.0105	.1585	.3401	.1446

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA02)

MACH (1) = 2.498 BETA (5) = -.070

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2815	-.0178	-.0329	.2972	.2424	.2716
30.000	.3087	-.0149	-.0128	.3036	.3235	.3227
60.000	.0569	-.0137	-.0140	-.0283	-.0556	-.0283
90.000	.0605	-.0158	-.0132	-.0135	-.0116	.0046
120.000	-.0475	-.0163	-.0206	-.0202	-.0279	-.0231
150.000	-.0435	-.0091	-.0115	-.0279	-.0390	-.0419
180.000	-.0441	-.0034	.0070	-.0153	-.0359	-.0419
210.000	-.0417	-.0234	-.0167	-.0245	-.0344	-.0371
240.000	-.0330	-.0253	-.0260	-.0318	-.0312	-.0296
270.000	-.0664	-.0194	-.0207	-.0216	-.0199	-.0317
300.000	-.0159	-.0192	-.0214	-.0385	.0194	.0023
330.000	.0059	-.0173	-.0292	.0140	.0730	.0433
360.000	.2815	-.0178	-.0329	.2972	.2424	.2716

MACH (1) = 2.498 BETA (6) = 1.990

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2604	-.0252	-.0383	.3274	.2860	.3113
30.000	.2837	-.0107	-.0081	.2834	.2925	.3047
60.000	.1301	-.0146	-.0078	-.0298	-.0443	.0092
90.000	.0726	-.0157	-.0105	-.0064	-.0241	.0084
120.000	-.0641	-.0213	-.0253	-.0254	-.0241	-.0357
150.000	-.0469	-.0084	-.0235	-.0384	-.0385	-.0382
180.000	-.0396	.0087	-.0017	-.0285	-.0399	-.0387
210.000	-.0375	-.0243	-.0180	-.0274	-.0322	-.0353
240.000	-.0336	-.0325	-.0299	-.0321	-.1220	-.0286
270.000	-.0476	-.0230	-.0249	-.0182	-.0231	-.0323
300.000	.0112	-.0199	-.0254	-.0424	-.0314	-.0463
330.000	-.0544	-.0198	-.0380	-.0346	.0101	.0230
360.000	.2604	-.0252	-.0383	.3274	.2860	.3113

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA02)

MACH (1) = 2.496 BETA (7) = 4.040

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2769	-.0371	.0114	.3201	.2630	.3028
30.000	.3591	-.0170	.0024	.3187	.3660	.3768
60.000	.2067	-.0139	-.0125	-.0369	-.0480	.0225
90.000	.1262	-.0166	-.0151	-.0131	-.0542	.0296
120.000	-.0676	-.0234	-.0286	-.0273	-.0270	-.0781
150.000	-.0517	-.0170	-.0287	-.0382	-.0383	-.0401
180.000	-.0396	.0018	-.0173	-.0285	-.0410	-.0402
210.000	-.0400	-.0316	-.0265	-.0348	-.0353	-.0374
240.000	-.0366	-.0352	-.0340	-.0327	-.0332	-.0351
270.000	-.0476	-.0261	-.0289	-.0256	-.0297	-.0463
300.000	-.0277	-.0252	-.0374	-.0485	-.0503	-.0829
330.000	-.0755	-.0305	-.0430	-.0913	-.0622	.0533
360.000	.2769	-.0371	.0114	.3201	.2630	.3028

MACH (1) = 2.496 BETA (8) = 6.110

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.3245	-.0440	.0627	.3298	.3032	.3388
30.000	.4690	-.0178	.0116	.3866	.4846	.4952
60.000	.3360	-.0204	-.0178	-.0415	-.0516	.0588
90.000	.2077	-.0224	-.0216	-.0180	-.0606	.0548
120.000	-.0679	-.0264	-.0333	-.0313	-.0345	-.1012
150.000	-.0600	-.0339	-.0452	-.0461	-.0447	-.0499
180.000	-.0467	-.0072	-.0336	-.0409	-.0466	-.0466
210.000	-.0452	-.0301	-.0268	-.0358	-.0390	-.0444
240.000	-.0430	-.0423	-.0396	-.0411	-.0416	-.0404
270.000	-.0539	-.0326	-.0319	-.0316	-.0352	-.0435
300.000	-.0751	-.0308	-.0430	-.0510	-.0637	-.1095
330.000	-.0935	-.0373	-.0385	-.0977	-.1023	.0592
360.000	.3245	-.0440	.0627	.3298	.3032	.3388

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA02)

MACH (1) = 2.498 BETA (9) = 7.130

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.3904	-.0440	.0600	.3263	.3224	.3709
30.000	.3908	-.0230	.0187	.4530	.5538	.5972
60.000	.4075	-.0250	-.0220	-.0385	-.0469	.0911
90.000	.2461	-.0254	-.0272	-.0198	-.0699	.0734
120.000	-.0711	-.0324	-.0343	-.0363	-.0400	-.1113
150.000	-.0626	-.0348	-.0447	-.0471	-.0537	-.0571
180.000	-.0549	[illegible]	-.0370	-.0493	-.0551	-.0573
210.000	-.0558	-.0341	-.0307	-.0432	-.0491	-.0515
240.000	-.0706	-.0459	-.0463	-.0474	-.0465	-.0479
270.000	-.0573	-.0363	-.0402	-.0378	-.0406	-.0436
300.000	-.1088	-.0349	-.0450	-.0552	-.1092	-.1127
330.000	-.1058	-.0407	-.0515	-.1261	-.1302	.0565
360.000	.3904	-.0440	.0600	.3263	.3224	.3709

ARC 87-710 IA12C 02 + T1 + S1 UPPER MPS NOZZLE (RB2A03) (03 SEP 74)

REFERENCE DATA

SREF = 40.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.498 ALPHA (1) = -7.850

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.4575	-.1372	.0993	.3671	.3178	.3620
30.000	.5394	-.1234	.3945	.4655	.6277	.6047
60.000	.3574	-.1275	-.1462	-.1565	-.0765	.1770
90.000	.2660	-.1423	-.1549	-.1755	-.1512	.0653
120.000	-.1534	-.1394	-.1544	-.1700	-.1741	-.1613
150.000	-.1502	-.1452	-.1457	-.1607	-.1656	-.1563
180.000	-.1462	-.1408	-.1425	-.1431	-.1491	-.1441
210.000	-.1593	-.1390	-.1403	-.1415	-.1467	-.1537
240.000	-.1677	-.1395	-.1499	-.1547	-.1662	-.1769
270.000	-.1742	-.1466	-.1654	-.1629	-.1677	-.1734
300.000	-.0422	-.1660	-.1791	-.0561	.1262	.0016
330.000	.0568	-.1461	.0301	.1556	.1064	.0999
360.000	.4575	-.1372	.0993	.3671	.3178	.3620

MACH (1) = 2.498 ALPHA (2) = -5.840

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.4029	-.1418	.2066	.2955	.2798	.3399
30.000	.5034	-.1302	.3476	.3991	.5215	.5519
60.000	.3196	-.1294	-.1553	-.1603	-.0654	.1426
90.000	.2006	-.1445	-.1548	-.1748	-.1575	.0539
120.000	-.1517	-.1462	-.1595	-.1734	-.1724	-.1608
150.000	-.1526	-.1507	-.1542	-.1643	-.1649	-.1602
180.000	-.1536	-.1475	-.1490	-.1503	-.1544	-.1470
210.000	-.1593	-.1475	-.1466	-.1475	-.1518	-.1575
240.000	-.1733	-.1436	-.1565	-.1615	-.1691	-.1800
270.000	-.1610	-.1532	-.1700	-.1617	-.1711	-.1739
300.000	-.0654	-.1713	-.1601	-.0217	.0765	-.0248
330.000	.3196	-.1534	.0267	.0670	.0762	.0645
360.000	.4029	-.1418	.2066	.2955	.2798	.3399

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RB2A03)

MACH (1) = 2.498 ALPHA (3) = -3.890

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.3615	-.1490	.2465	.2409	.2442	.3015
30.000	.4513	-.1341	.2835	.3294	.4011	.4552
60.000	.2804	-.1326	-.1607	-.1627	-.0921	.1151
90.000	.1522	-.1474	-.1597	-.1755	-.1627	.0256
120.000	-.1534	-.1532	-.1633	-.1742	-.1726	-.1596
150.000	-.1526	-.1536	-.1597	-.1677	-.1644	-.1641
180.000	-.1567	-.1521	-.1519	-.1561	-.1583	-.1517
210.000	-.1615	[illegible]	-.1519	-.1517	-.1546	-.1590
240.000	-.1798	-.1460	-.1616	-.1677	-.2428	-.1839
270.000	-.1660	-.1580	-.1725	-.1617	-.1814	-.1814
300.000	-.0967	-.1766	-.1803	-.0319	.0372	-.0503
330.000	-.0025	-.1567	.0133	.0387	.0478	.0370
360.000	.3615	-.1490	.2465	.2409	.2442	.3015

MACH (1) = 2.498 ALPHA (4) = -1.840

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.3203	-.1524	.2267	.2007	.2152	.2697
30.000	.3777	-.1375	.2168	.2729	.3110	.3567
60.000	.2342	-.1331	-.1602	-.1623	-.1003	.0923
90.000	.1133	-.1501	-.1566	-.1746	-.1661	.0017
120.000	-.1548	-.1534	-.1658	-.1715	-.1721	-.1628
150.000	-.1497	-.1541	-.1597	-.1685	-.1625	-.1626
180.000	-.1580	-.1514	-.1521	-.1556	-.1583	-.1534
210.000	-.1622	-.1543	-.1524	-.1531	-.1546	-.1609
240.000	-.1820	-.1510	-.1619	-.1689	-.1797	-.1858
270.000	-.1885	-.1609	-.1715	-.1832	-.1874	-.1869
300.000	-.0978	-.1761	-.1803	-.0497	.0094	-.0679
330.000	-.0323	-.1580	-.0097	.0023	.0231	.0089
360.000	.3203	-.1524	.2267	.2007	.2152	.2697

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA03)

MACH (1) = 2.498 ALPHA (5) = .160

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2756	-.1536	.1671	.1790	.1955	.2439
30.000	.3146	-.1563	.1651	.2580	.2557	.2909
60.000	.1646	-.1517	-.1566	-.1639	-.1116	.0699
90.000	.0645	-.1501	-.1563	-.1729	-.1709	-.0159
120.000	.1609	-.1527	-.1641	-.1686	-.1726	-.1702
150.000	-.1490	-.1556	-.1571	-.1655	-.1600	-.1607
180.000	-.1558	-.1504	-.1519	-.1532	-.1561	-.1551
210.000	-.1603	-.1541	-.1504	-.1517	-.1527	-.1576
240.000	-.1649	-.1515	-.1597	-.1620	-.1770	-.1853
270.000	-.1677	-.1587	-.1681	-.1644	-.1792	-.1925
300.000	-.1055	-.1720	-.1650	-.0657	-.0057	-.0784
330.000	-.0903	-.1577	-.0341	-.0142	.0025	-.0055
360.000	.2756	-.1536	.1671	.1790	.1955	.2439

MACH (1) = 2.498 ALPHA (6) = 2.160

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2349	-.1516	.1125	.1643	.1776	.2233
30.000	.2643	-.1558	.1255	.2125	.2202	.2541
60.000	.1426	-.1324	-.1555	-.1647	-.1240	.0467
90.000	.0605	-.1520	-.1613	-.1731	-.1743	-.0331
120.000	-.1640	-.1534	-.1663	-.1725	-.1734	-.1772
150.000	-.1528	-.1543	-.1571	-.1653	-.1625	-.1568
180.000	-.1536	-.1531	-.1526	-.1527	-.1559	-.1564
210.000	-.1613	-.1538	-.1528	-.1526	-.1525	-.1566
240.000	-.1661	-.1532	-.1580	-.1605	-.1724	-.1853
270.000	-.1909	-.1568	-.1661	-.1665	-.1716	-.1942
300.000	-.1103	-.1713	-.1635	-.0608	-.0172	-.0546
330.000	-.0618	-.1577	-.0585	-.0209	-.0102	-.0169
360.000	.2349	-.1516	.1125	.1643	.1776	.2233

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA03)

MACH (1) = 2.498 ALPHA (7) = 4.170

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0980	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2295	-.1504	.0859	.1593	.1776	.2194
30.000	.2293	-.1356	.0846	.1744	.1626	.2142
60.000	.1309	-.1502	-.1595	-.1644	-.1264	.0337
90.000	.0378	-.1536	-.1627	-.1738	-.1702	-.0477
120.000	-.1635	-.1561	-.1691	-.1725	-.1741	-.1776
150.000	-.1553	-.1553	-.1597	-.1667	-.1620	-.1563
180.000	-.1551	-.1553	-.1526	-.1559	-.1587	-.1566
210.000	-.1610	-.1548	-.1541	-.1517	-.1551	-.1592
240.000	-.1675	-.1539	-.1582	-.1615	-.1691	-.1859
270.000	-.1550	-.1577	-.1686	-.1902	-.1713	-.1956
300.000	-.1074	-.1713	-.1812	-.1009	-.0225	-.0900
330.000	-.0695	-.1552	-.0836	-.0348	-.0209	-.0319
360.000	.2295	-.1504	.0859	.1593	.1776	.2194

MACH (1) = 2.498 ALPHA (8) = 6.210

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0980	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.2250	-.1468	.0161	.1942	.1995	.2340
30.000	.2114	-.1366	.0990	.1417	.1805	.2142
60.000	.1606	-.1277	-.1659	-.1637	-.1239	.0159
90.000	.0150	-.1541	-.1625	-.1739	-.1623	-.0609
120.000	-.1623	-.1580	-.1701	-.1713	-.1726	-.1709
150.000	-.1538	-.1577	-.1602	-.1689	-.1615	-.1573
180.000	-.1597	-.1559	-.1546	-.1554	-.1612	-.1576
210.000	-.1625	-.1558	-.1545	-.1519	-.1551	-.1612
240.000	-.1648	-.1549	-.1503	-.1596	-.1659	-.1846
270.000	-.1972	-.1573	-.1676	-.1851	-.1673	-.1966
300.000	-.0934	-.1684	-.1830	-.1271	-.0009	-.0823
330.000	-.0707	-.1570	-.1068	-.0704	-.0296	-.0428
360.000	.2290	-.1468	.0161	.1942	.1995	.2340

ARC 87-710 IA12C 02 + T1 + S1 UPPER MPS NOZZLE (RBZA03)

MACH (1) = 2.498 ALPHA (9) = 8.190

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2032	-.1437	-.0540	.2184	.2273	.2316
30.000	.1576	-.1338	.0975	.1461	.1714	.1806
60.000	.1646	-.1317	-.1682	-.1616	-.1283	.0127
90.000	.0174	-.1561	-.1642	-.1765	-.1580	-.0609
120.000	-.1635	-.1583	-.1682	-.1737	-.1751	-.1647
150.000	-.1533	-.1618	-.1612	-.1704	-.1657	-.1612
180.000	-.1604	-.1553	-.1570	-.1575	-.1636	-.1588
210.000	-.1632	-.1570	-.1531	-.1546	-.1556	-.1609
240.000	-.1631	-.1556	-.1585	-.1596	-.1647	-.1733
270.000	-.1885	-.1604	-.1701	-.1712	-.2400	-.1956
300.000	-.0881	-.1660	-.1774	-.1371	-.0137	-.0837
330.000	-.0715	-.1558	-.1088	-.0788	-.0373	-.0493
360.000	.2032	-.1437	-.0540	.2184	.2273	.2316

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA04) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
ALPHA = .000

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0566	-.1317	-.1024	.1765	.1252	-.0203
30.000	.0140	-.1387	-.1351	.2703	.1930	.1012
60.000	.0951	-.1433	-.1383	-.1397	-.1475	.0470
90.000	-.0261	-.1469	-.1504	-.1468	-.1395	-.0799
120.000	-.1509	-.1491	-.1524	-.1501	-.1522	-.1568
150.000	-.1504	-.1507	-.1500	-.1524	-.1541	-.1543
180.000	-.1502	-.1500	-.1495	-.1503	-.1530	-.1528
210.000	-.1511	-.1512	-.1507	-.1497	-.1491	-.1513
240.000	-.1493	-.1518	-.1541	-.1507	-.1507	-.1501
270.000	-.1457	-.1539	-.1668	-.1664	-.1521	-.1483
300.000	-.0185	-.1658	-.1762	-.0463	.0683	-.0307
330.000	.0536	-.1601	.0499	.0817	.0262	.0476
360.000	-.0566	-.1317	-.1024	.1765	.1252	-.0203

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0278	-.1312	-.0850	.3700	.1102	.0040
30.000	.0854	-.1380	-.1255	.3178	.2485	.1549
60.000	.0651	-.1404	-.1397	-.1383	-.1372	.0896
90.000	.0362	-.1471	-.1477	-.1465	-.1327	-.0598
120.000	-.1512	-.1467	-.1519	-.1484	-.1527	-.1565
150.000	-.1509	-.1493	-.1505	-.1522	-.1531	-.1544
180.000	-.1502	-.1487	-.1478	-.1501	-.1537	-.1519
210.000	-.1492	-.1510	-.1492	-.1485	-.1489	-.1515
240.000	-.1495	-.1506	-.1546	-.1495	-.1488	-.1481
270.000	-.1472	-.1544	-.1666	-.1676	-.1502	-.1471
300.000	-.0364	-.1655	-.1798	-.0560	.0649	-.0323
330.000	.0818	-.1551	-.0006	.0623	.0293	.0578
360.000	-.0278	-.1312	-.0850	.3700	.1102	.0040

ARC 87-710 IA12C D2 + T1 + S1 UPPER MPS NOZZLE (RBZA04)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.0837	-.1339	-.0954	.3168	.1708	.0772
30.000	.2332	-.1351	-.0256	.2510	.3283	.3231
60.000	.0771	-.1403	-.1429	-.1397	-.1298	.0839
90.000	.1470	-.1447	-.1484	-.1478	-.1313	-.0279
120.000	-.1538	-.1455	-.1513	-.1504	-.1532	-.1532
150.000	-.1491	-.1481	-.1503	-.1520	-.1509	-.1541
180.000	-.1517	-.1478	-.1471	-.1484	-.1505	-.1494
210.000	-.1511	-.1495	-.1480	-.1490	-.1478	-.1544
240.000	-.1697	-.1487	-.1631	-.1649	-.1635	-.1865
270.000	-.1885	-.1551	-.1666	-.1813	-.1833	-.1575
300.000	-.0546	-.1701	-.1767	-.0801	.0275	-.0520
330.000	.0837	-.1570	-.0320	.0350	.0369	.0548
360.000	.0837	-.1339	-.0954	.3168	.1708	.0772

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.1837	-.1372	-.0866	.3318	.2044	.1274
30.000	.2994	-.1380	.1469	.3427	.3907	.3366
60.000	.1231	-.1367	-.1466	-.1536	-.1223	.0149
90.000	.1365	-.1471	-.1555	-.1561	-.1510	-.0113
120.000	-.1666	-.1469	-.1551	-.1546	-.1649	-.1580
150.000	-.1900	-.1502	-.1529	-.1539	-.1543	-.1531
180.000	-.1517	-.1483	-.1490	-.1505	-.1510	-.1506
210.000	-.1580	-.1497	-.1483	-.1495	-.1515	-.1537
240.000	-.1893	-.1494	-.1576	-.1620	-.1703	-.1815
270.000	-.1790	-.1563	-.1717	-.1859	-.1792	-.1696
300.000	-.0680	-.1716	-.1740	-.0692	.0271	-.0532
330.000	.0129	-.1548	-.0486	.0432	-.0004	.0322
360.000	.1837	-.1372	-.0866	.3318	.2044	.1274

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RBZA04)

MACH (1) = 2.498 BETA (5) = -.07

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2754	-.1507	.1721	.1848	.2020	.2463
30.000	.3009	-.1344	.1588	.2404	.2510	.2878
60.000	.1972	-.1348	-.1588	-.1620	-.1099	.0779
90.000	.0870	-.1515	-.1622	-.1754	-.1678	-.0157
120.000	-.1594	-.1510	-.1660	-.1734	-.1724	-.1724
150.000	-.1512	-.1526	-.1566	-.1675	-.1653	-.1597
180.000	-.1561	-.1516	-.1507	-.1527	-.1583	-.1587
210.000	-.1626	-.1536	-.1512	-.1505	-.1527	-.1595
240.000	-.1666	-.1545	-.1602	-.1586	-.1751	-.1761
270.000	-.1735	-.1588	-.1695	-.1844	-.1651	-.1913
300.000	-.1038	-.1691	-.1630	-.0716	-.0091	-.0760
330.000	-.0508	-.1563	-.0361	-.0147	-.0051	-.0066
360.000	.2754	-.1507	.1721	.1848	.2020	.2463

MACH (1) = 2.498 BETA (8) = 1.990

SECTION (1)UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2626	-.1526	.2095	.2198	.2520	.2946
30.000	.2608	-.1322	.1439	.2165	.2374	.2660
60.000	.2764	-.1318	-.1592	-.1613	-.0785	.1508
90.000	.0947	-.1505	-.1653	-.1673	-.1395	-.0133
120.000	-.1529	-.1556	-.1725	-.1722	-.1646	-.1654
150.000	-.1504	-.1558	-.1633	-.1730	-.1710	-.1568
180.000	-.1519	-.1553	-.1548	-.1604	-.1638	-.1597
210.000	-.1600	-.1519	-.1536	-.1505	-.1532	-.1604
240.000	-.1650	-.1546	-.1590	-.1557	-.1628	-.1571
270.000	-.1713	-.1590	-.1778	-.1764	-.1567	-.1647
300.000	-.0794	-.1687	-.1654	-.1576	.0448	-.0556
330.000	-.0880	-.1514	-.1172	-.0490	-.0087	.0107
360.000	.2626	-.1526	.2095	.2198	.2520	.2946

ARC 87-710 IA12C 02 + T1 + S1 UPPER MPS NOZZLE (RBZA04)

MACH (1) = 2.490 BETA (7) = 4.050

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.2655	-.1538	.2060	.2017	.2545	.2824
30.000	.3457	-.1277	.1591	.2488	.3149	.3501
60.000	.4598	-.1318	-.1548	-.1589	-.0741	.1938
90.000	.1415	-.1486	-.1671	-.1599	-.1325	.0171
120.000	-.1504	-.1525	-.1655	-.1717	-.1533	-.1565
150.000	-.1470	-.1555	-.1621	-.1708	-.1665	-.1511
180.000	-.1462	-.1530	-.1553	-.1585	-.1626	-.1577
210.000	-.1538	-.1426	-.1475	-.1495	-.1486	-.1541
240.000	-.1609	-.1501	-.1511	-.1564	-.1519	-.1525
270.000	-.1662	-.1575	-.1724	-.1724	-.1528	-.1543
300.000	-.0960	-.1650	-.1893	-.1610	.0342	-.0781
330.000	-.0928	-.1480	-.1365	-.0838	-.0449	.0467
360.000	.2655	-.1538	.2060	.2017	.2545	.2824

MACH (1) = 2.490 BETA (8) = 6.100

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	.3194	-.1658	.2445	.2509	.2830	.3228
30.000	.4649	-.1268	.1187	.3250	.4407	.4908
60.000	.5925	-.1286	-.1422	-.1522	-.0777	.2164
90.000	.2163	-.1459	-.1666	-.1600	-.1229	.0608
120.000	-.1560	-.1544	-.1702	-.1739	-.1551	-.1560
150.000	-.1521	-.1574	-.1662	-.1740	-.1700	-.1527
180.000	-.1478	-.1586	-.1545	-.1633	-.1667	-.1624
210.000	-.1560	-.1448	-.1514	-.1521	-.1537	-.1563
240.000	-.1612	-.1521	-.1495	-.1577	-.1546	-.1549
270.000	-.1677	-.1561	-.1707	-.1667	-.1541	-.1531
300.000	-.1475	-.1703	-.1676	-.1605	-.0406	-.1144
330.000	-.1008	-.1497	-.1609	-.1236	-.1100	.0521
360.000	.3194	-.1658	.2445	.2509	.2830	.3228

ARC 87-710 IA12C O2 + T1 + S1 UPPER MPS NOZZLE (RB2A04)

MACH (1) = 2.498 BETA (9) = 7.130

SECTION (1) UPPER MPS NOZZLE DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	.3946	-.1708	.2768	.2564	.3085	.3614
30.000	.5912	-.1280	.1313	.3656	.5131	.6021
60.000	.5606	-.1235	-.1407	-.1503	-.0697	.2243
90.000	.2226	-.1469	-.1656	-.1687	-.1277	.0774
120.000	-.1622	-.1548	-.1723	-.1742	-.1628	-.1560
150.000	-.1519	-.1613	-.1655	-.1787	-.1707	-.1567
180.000	-.1515	-.1585	-.1589	-.1655	-.1699	-.1651
210.000	-.1592	-.1471	-.1519	-.1552	-.1537	-.1588
240.000	-.1658	-.1529	-.1493	-.1571	-.1601	-.1595
270.000	-.1686	-.1590	-.1641	-.1763	-.1564	-.1591
300.000	-.1879	-.1689	-.1896	-.1661	-.0999	-.1372
330.000	-.1086	-.1526	-.1848	-.1654	-.1459	.0478
360.000	.3946	-.1708	.2768	.2564	.3085	.3614

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ801) (03 SEP 74)

REFERENCE DATA

SREF = 48.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = 1.000 OPR = 31.260
SRMPR = .916 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.498 ALPHA (1) = -7.900

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0162	.0024	-.0031	-.0051	-.0169	-.0165
30.000	-.0159	-.0084	.0000	-.0067	-.0092	-.0199
60.000	-.0204	-.0112	-.0132	-.0059	-.0113	-.0120
90.000	-.0257	-.0159	-.0160		-.0209	-.0282
120.000	-.0096	.0001	-.0128		-.0192	-.0118
150.000	.0048	.0033	-.0006		-.0141	-.0113
180.000	.0014	.0013	-.0029		-.0167	-.0136
210.000	-.0027	-.0054	-.0075		-.0132	-.0152
240.000	-.0211	-.0113	-.0094		-.0172	-.0162
270.000	-.0275	-.0114	-.0125	-.0102	-.0152	-.0206
300.000	-.0139	-.0030	-.0111	-.0111	-.0089	-.0104
330.000	-.0066	-.0005	-.0025	-.0136	-.0141	-.0110
360.000	-.0162	.0024	-.0031	-.0051	-.0169	-.0165

MACH (1) = 2.498 ALPHA (2) = -5.890

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0191	-.0020	-.0035	-.0051	-.0181	-.0179
30.000	-.0241	-.0066	-.0056	-.0066	-.0105	-.0244
60.000	-.0224	-.0145	-.0141	-.0147	-.0189	-.0176
90.000	-.0341	-.0159	-.0205		-.0352	-.0392
120.000	-.0125	-.0021	-.0159		-.0219	-.0211
150.000	.0099	-.0007	-.0047		-.0172	-.0073
180.000	.0099	-.0047	-.0069		-.0186	-.0150
210.000	-.0051	-.0066	-.0154		-.0192	-.0210
240.000	-.0263	-.0162	-.0159		-.0263	-.0261
270.000	-.0365	-.0145	-.0153	-.0149	-.0226	-.0311
300.000	-.0175	-.0039	-.0142	-.0121	-.0114	-.0161
330.000	-.0120	-.0026	-.0037	-.0154	-.0131	-.0119
360.000	-.0191	-.0020	-.0035	-.0051	-.0181	-.0179

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ801)

MACH (1) = 2.498 ALPHA (3) = -3.900

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0259	-.0077	-.0112	-.0114	-.0250	-.0263
30.000	-.0326	-.0112	-.0128	-.0153	-.0178	-.0310
60.000	-.0352	-.0193	-.0199	-.0253	-.0280	-.0285
90.000	-.0515	-.0247	-.0286		-.0471	-.0541
120.000	-.0176	-.0098	-.0264		-.0334	-.0299
150.000	.0081	-.0072	-.0118		-.0253	-.0090
180.000	.0105	-.0131	-.0158		-.0269	-.0190
210.000	-.0150	-.0147	-.0241		-.0291	-.0300
240.000	-.0404	-.0255	-.0248		-.0370	-.0362
270.000	-.0465	-.0233	-.0243	-.0214	-.0313	-.0372
300.000	-.0239	-.0126	-.0235	-.0209	-.0144	-.0229
330.000	-.0185	-.0058	-.0116	-.0216	-.0220	-.0154
360.000	-.0259	-.0077	-.0112	-.0114	-.0250	-.0263

MACH (1) = 2.498 ALPHA (4) = -1.890

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0361	-.0120	-.0149	-.0190	-.0263	-.0341
30.000	-.0418	-.0204	-.0167	-.0207	-.0258	-.0345
60.000	-.0345	-.0269	-.0311	-.0323	-.0349	-.0389
90.000	-.0647	-.0226	-.0388		-.0590	-.0628
120.000	-.0268	-.0145	-.0260		-.0440	-.0389
150.000	.0079	-.0149	-.0169		-.0280	-.0131
180.000	.0053	-.0197	-.0225		-.0250	-.0216
210.000	-.0276	-.0246	-.0312		-.0377	-.0390
240.000	-.0524	-.0329	-.0339		-.0493	-.0534
270.000	-.0553	-.0247	-.0317	-.0320	-.0420	-.0484
300.000	-.0507	-.0178	-.0235	-.0283	-.0250	-.0300
330.000	-.0240	-.0149	-.0171	-.0233	-.0234	-.0253
360.000	-.0361	-.0120	-.0149	-.0190	-.0263	-.0341

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2001)

MACH (1) = 2.498 ALPHA (5) = .130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0412	-.0163	-.0206	-.0234	-.0291	-.0378
30.000	-.0436	-.0226	-.0221	-.0251	-.0307	-.0363
60.000	-.0365	-.0282	-.0350	-.0367	-.0400	-.0427
90.000	-.0680	-.0290	-.0369		-.0615	-.0674
120.000	-.0515	-.0186	-.0298		-.0454	-.0426
150.000	-.0004	-.0189	-.0220		-.0313	-.0224
180.000	-.0011	-.0240	-.0275		-.0266	-.0260
210.000	-.0218	-.0263	-.0347		-.0399	-.0362
240.000	-.0465	-.0330	-.0365		-.0505	-.0523
270.000	-.0569	-.0263	-.0351	-.0365	-.0453	-.0522
300.000	-.0351	-.0249	-.0268	-.0315	-.0299	-.0343
330.000	-.0290	-.0203	-.0230	-.0271	-.0297	-.0316
360.000	-.0412	-.0163	-.0206	-.0234	-.0291	-.0378

MACH (1) = 2.498 ALPHA (6) = 2.080

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0346	-.0238	-.0234	-.0255	-.0267	-.0349
30.000	-.0399	-.0260	-.0271	-.0263	-.0287	-.0307
60.000	-.0391	-.0322	-.0304	-.0322	-.0352	-.0377
90.000	-.0801	-.0290	-.0360		-.0531	-.0579
120.000	-.0341	-.0243	-.0314		-.0440	-.0450
150.000	-.0075	-.0234	-.0300		-.0400	-.0270
180.000	-.0008	-.0295	-.0318		-.0354	-.0288
210.000	-.0229	-.0300	-.0388		-.0402	-.0342
240.000	-.0474	-.0332	-.0381		-.0477	-.0478
270.000	-.0558	-.0267	-.0336	-.0363	-.0440	-.0470
300.000	-.0303	-.0272	-.0262	-.0336	-.0282	-.0335
330.000	-.0302	-.0205	-.0241	-.0257	-.0327	-.0270
360.000	-.0346	-.0238	-.0234	-.0255	-.0267	-.0349

ARC 87-710 IA12C 02 + T1 + S1 LOWER LH MPS NOZ. (RB2001)

MACH (1) = 2.498 ALPHA (7) = 4.100

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0349	-.0207	-.0218	-.0252	-.0278	-.0328
30.000	-.0440	-.0257	-.0240	-.0240	-.0286	-.0333
60.000	-.0401	-.0332	-.0315	-.0329	-.0360	-.0400
90.000	-.0895	-.0289	-.0382		-.0574	-.0807
120.000	-.0367	-.0241	-.0332		-.0471	-.0454
150.000	.0001	-.0240	-.0313		-.0403	-.0242
180.000	.0129	-.0282	-.0366		-.0356	-.0251
210.000	-.0203	-.0315	-.0421		-.0413	-.0335
240.000	-.0514	-.0345	-.0398		-.0525	-.0522
270.000	-.0620	-.0299	-.0355	-.0340	-.0466	-.0519
300.000	-.0326	-.0271	-.0299	-.0320	-.0250	-.0323
330.000	-.0281	-.0206	-.0231	-.0275	-.0311	-.0245
360.000	-.0349	-.0207	-.0218	-.0252	-.0278	-.0328

MACH (1) = 2.498 ALPHA (8) = 6.130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0426	-.0312	-.0359	-.0305	-.0341	-.0413
30.000	-.0456	-.0333	-.0334	-.0377	-.0381	-.0411
60.000	-.0458	-.0419	-.0411	-.0483	-.0522	-.0453
90.000	-.0827	-.0359	-.0480		-.0749	-.0935
120.000	-.0419	-.0280	-.0373		-.0584	-.0567
150.000	.0083	-.0282	-.0341		-.0533	-.0279
180.000	.0036	-.0368	-.0483		-.0450	-.0430
210.000	-.0371	-.0355	-.0509		-.0491	-.0428
240.000	-.0581	-.0412	-.0409		-.0626	-.0620
270.000	-.0652	-.0322	-.0400	-.0365	-.0466	-.0570
300.000	-.0406	-.0309	-.0317	-.0371	-.0343	-.0360
330.000	-.0369	-.0293	-.0252	-.0351	-.0375	-.0343
360.000	-.0426	-.0312	-.0359	-.0305	-.0341	-.0413

ARC 67-710 IA12C 02 + T1 + S1 LOWER LH MPS NOZ. (RB2801)

MACH (1) = 2.400 ALPHA (9) = 8.140

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0980	.2380	.4080	.5800	.7540	.9200
PHI						
.000	-.0497	-.0341	-.0330	-.0365	-.0436	-.0512
30.000	-.0530	-.0369	-.0372	-.0378	-.0454	-.0511
60.000	-.0904	-.0482	-.0494	-.0532	-.0562	-.0613
90.000	-.1030	-.0426	-.0569		-.0850	-.0927
120.000	-.0348	-.0279	-.0440		-.0645	-.0997
150.000	.0187	-.0270	-.0361		-.0575	-.0311
180.000	.0059	-.0403	-.0487		-.0615	-.0482
210.000	-.0466	-.0431	-.0563		-.0866	-.0627
240.000	-.0782	-.0472	-.0468		-.0700	-.0745
270.000	-.0758	-.0402	-.0460	-.0409	-.0532	-.0626
300.000	-.0431	-.0246	-.0361	-.0431	-.0377	-.0446
330.000	-.0406	-.0270	-.0320	-.0390	-.0474	-.0392
360.000	-.0497	-.0341	-.0330	-.0365	-.0436	-.0512

ARC 87-710 IA12C 02 + T1 + S1 LOWER LH MPS NOZ. (RBZ002) (05 SEP 74)

REFERENCE DATA

SREF = 48.4300 SQ.FT. XMRP = 156.0000 INCHES
LREF = 80.7000 INCHES YMRP = .0000 INCHES
BREF = 80.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = 1.000 OPR = 31.260
SRMPR = .916 GIMBAL = 1.000
ALPHA = .000

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0464	-.0330	-.0357	-.0414	-.0473	-.0452
30.000	-.0503	-.0439	-.0404	-.0392	-.0439	-.0493
60.000	-.0606	-.0459	-.0556	-.0545	-.0558	-.0622
90.000	-.0663	-.0558	-.0608		-.0777	-.0602
120.000	-.0256	-.0359	-.0466		-.0631	-.0490
150.000	.0124	-.0228	-.0347		-.0410	-.0249
180.000	.0262	-.0323	-.0439		-.0577	-.0177
210.000	-.0109	-.0470	-.0619		-.0914	-.0609
240.000	-.0769	-.0552	-.0594		-.0608	-.0547
270.000	-.0714	-.0519	-.0560	-.0590	-.0595	-.0656
300.000	-.0443	-.0461	-.0493	-.0504	-.0476	-.0466
330.000	-.0402	-.0395	-.0452	-.0473	-.0467	-.0444
360.000	-.0464	-.0330	-.0357	-.0414	-.0473	-.0452

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0435	-.0261	-.0318	-.0343	-.0410	-.0433
30.000	-.0476	-.0339	-.0350	-.0366	-.0371	-.0447
60.000	-.0513	-.0412	-.0499	-.0498	-.0526	-.0541
90.000	-.0795	-.0459	-.0555		-.0719	-.0768
120.000	-.0245	-.0271	-.0385		-.0509	-.0420
150.000	.0132	-.0200	-.0254		-.0329	-.0165
180.000	.0223	-.0257	-.0367		-.0440	-.0146
210.000	-.0056	-.0399	-.0540		-.0679	-.0431
240.000	-.0633	-.0499	-.0581		-.0761	-.0741
270.000	-.0713	-.0469	-.0521	-.0530	-.0607	-.0653
300.000	-.0414	-.0405	-.0447	-.0461	-.0417	-.0444
330.000	-.0352	-.0362	-.0384	-.0416	-.0419	-.0395
340.000	-.0435	-.0261	-.0318	-.0343	-.0410	-.0433

ARC 07-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2BC2)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0424	-.0207	-.0237	-.0291	-.0333	-.0371
30.000	-.0402	-.0249	-.0271	-.0318	-.0344	-.0419
60.000	-.0449	-.0293	-.0367	-.0439	-.0465	-.0490
90.000	-.0730	-.0341	-.0436		-.0664	-.0712
120.000	-.0282	-.0207	-.0305		-.0416	-.0392
150.000	.0075	-.0167	-.0216		-.0258	-.0115
180.000	.0148	-.0241	-.0277		-.0313	-.0153
210.000	-.0157	-.0310	-.0439		-.0599	-.0418
240.000	-.0723	-.0396	-.0465		-.0728	-.0773
270.000	-.0663	-.0340	-.0415	-.0488	-.0564	-.0609
300.000	-.0369	-.0306	-.0340	-.0360	-.0348	-.0404
330.000	-.0343	-.0237	-.0305	-.0335	-.0349	-.0309
360.000	-.0424	-.0207	-.0237	-.0291	-.0333	-.0371

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0318	-.0119	-.0143	-.0200	-.0274	-.0297
30.000	-.0363	-.0157	-.0166	-.0208	-.0279	-.0346
60.000	-.0336	-.0234	-.0267	-.0317	-.0356	-.0384
90.000	-.0573	-.0296	-.0366		-.0555	-.0604
120.000	-.0229	-.0177	-.0249		-.0343	-.0329
150.000	.0067	-.0115	-.0167		-.0206	-.0099
180.000	.0121	-.0202	-.0200		-.0225	-.0101
210.000	-.0206	-.0230	-.0325		-.0358	-.0314
240.000	-.0677	-.0323	-.0381		-.0543	-.0637
270.000	-.0769	-.0274	-.0318	-.0421	-.0564	-.0650
300.000	-.0392	-.0166	-.0248	-.0266	-.0313	-.0401
330.000	-.0310	-.0134	-.0188	-.0253	-.0249	-.0282
360.000	-.0318	-.0119	-.0143	-.0200	-.0274	-.0297

ARC 87-71C IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2802)

MACH (1) = 2.490 BETA (5) = -.070

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0444	-.0221	-.0230	-.0298	-.0325	-.0360
30.000	-.0469	-.0290	-.0262	.0302	-.0335	-.0407
60.000	-.0420	-.0302	-.0370	-.0389	-.0425	-.0462
90.000	-.0706	-.0309	-.0400		-.0653	-.0688
120.000	-.0344	-.0240	-.0345		-.0449	-.0432
150.000	-.0052	-.0225	-.0266		-.0314	-.0252
180.000	-.0037	-.0282	-.0297		-.0333	-.0257
210.000	-.0228	-.0293	-.0413		-.0470	-.0413
240.000	-.0535	-.0344	-.0364		-.0566	-.0596
270.000	-.0603	-.0315	-.0363	-.0389	-.0509	-.0552
300.000	-.0391	-.0282	-.0322	-.0334	-.0300	-.0399
330.000	-.0355	-.0235	-.0277	-.0303	-.0313	-.0302
360.000	-.0444	-.0221	-.0230	-.0298	-.0325	-.0360

MACH (1) = 2.490 BETA (6) = 1.990

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0387	-.0229	-.0248	-.0275	-.0344	-.0377
30.000	-.0402	-.0242	-.0267	-.0293	-.0333	-.0387
60.000	-.0348	-.0317	-.0355	-.0370	-.0408	-.0400
90.000	-.0599	-.0335	-.0419		-.0398	-.0635
120.000	-.0345	-.0255	-.0350		-.0483	-.0442
150.000	-.0056	-.0222	-.0284		-.0348	-.0225
180.000	.0040	-.0280	-.0303		-.0359	-.0298
210.000	-.0227	-.0289	-.0411		-.0408	-.0393
240.000	-.0458	-.0363	-.0408		-.0507	-.0489
270.000	-.0645	-.0335	-.0370	-.0404	-.0521	-.0569
300.000	-.0465	-.0292	-.0323	-.0337	-.0320	-.0419
330.000	-.0355	-.0229	-.0280	-.0325	-.0335	-.0305
360.000	-.0387	-.0229	-.0248	-.0275	-.0344	-.0377

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ802)

MACH (1) = 2.498 BETA (7) = 4.040

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0433	-.0273	-.0326	-.0339	-.0388	-.0402
30.000	-.0408	-.0329	-.0297	-.0348	-.0367	-.0410
60.000	-.0354	-.0360	-.0393	-.0371	-.0415	-.0398
90.000	-.0555	-.0378	-.0455		-.0564	-.0601
120.000	-.0370	-.0317	-.0413		-.0556	-.0476
150.000	-.0117	-.0278	-.0348		-.0400	-.0298
180.000	.0039	-.0310	-.0364		-.0356	-.0228
210.000	-.0170	-.0359	-.0420		-.0411	-.0361
240.000	-.0535	-.0429	-.0479		-.0557	-.0561
270.000	-.0793	-.0391	-.0451	-.0513	-.0619	-.0718
300.000	-.0572	-.0332	-.0367	-.0393	-.0432	-.0540
330.000	-.0424	-.0293	-.0308	-.0384	-.0404	-.0395
360.000	-.0433	-.0273	-.0326	-.0339	-.0388	-.0402

MACH (1) = 2.498 BETA (8) = 6.110

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0503	-.0360	-.0398	-.0400	-.0448	-.0470
30.000	-.0491	-.0410	-.0389	-.0425	-.0447	-.0477
60.000	-.0488	-.0461	-.0495	-.0491	-.0532	-.0543
90.000	-.0695	-.0466	-.0576		-.0678	-.0702
120.000	-.0419	-.0392	-.0492		-.0654	-.0576
150.000	-.0147	-.0338	-.0428		-.0485	-.0373
180.000	.0113	-.0368	-.0421		-.0392	-.0198
210.000	-.0067	-.0425	-.0509		-.0425	-.0296
240.000	-.0521	-.0541	-.0611		-.0595	-.0571
270.000	-.1062	-.0526	-.0603	-.0685	-.0807	-.0942
300.000	-.0732	-.0436	-.0487	-.051[illegible]	-.0586	-.0719
330.000	-.0549	-.0382	-.0412	-.046[illegible]	-.0490	-.0510
360.000	-.0503	-.0360	-.0398	-.0400	-.0448	-.0470

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ802)

MACH (1) = 2.498 BETA (9) = 7.130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0567	-.0401	-.0437	-.0465	-.0505	-.0548
30.000	-.0562	-.0464	-.0449	-.0458	-.0494	-.0558
60.000	-.0582	-.0517	-.0567	-.0572	-.0584	-.0624
90.000	-.0718	-.0551	-.0656		-.0760	-.0746
120.000	-.0423	-.0425	-.0544		-.0697	-.0606
150.000	-.0157	-.0346	-.0425		-.0541	-.0411
180.000	.0378	-.0386	-.0427		-.0417	-.0247
210.000	-.0075	-.0469	-.0549		-.0435	-.0285
240.000	-.0572	-.0646	-.0685		-.0653	-.0626
270.000	-.1093	-.0632	-.0732	-.0800	-.0951	-.1062
300.000	-.0817	-.0532	-.0596	-.0636	-.0682	-.0793
330.000	-.0612	-.0469	-.0496	-.0545	-.0579	-.0589
360.000	-.0567	-.0401	-.0437	-.0465	-.0505	-.0548

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ803) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 156.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.498 ALPHA (1) = -7.830

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1373	-.1335	-.1284	-.1323	-.1279	-.1279
30.000	-.1361	-.1417	-.1323	-.1344	-.1335	-.1383
60.000	-.1351	-.1349	-.1412	-.1328	-.1318	-.1328
90.000	-.1357	-.1380	-.1322		-.1350	-.1327
120.000	-.1387	-.1353	-.1372		-.1393	-.1357
150.000	-.1366	-.1346	-.1348		-.1334	-.1381
180.000	-.1333	-.1352	-.1341		-.1375	-.1315
210.000	-.1310	-.1347	-.1349		-.1345	-.1356
240.000	-.1310	-.1366	-.1359		-.1339	-.1331
270.000	-.1318	-.1373	-.1352	-.1350	-.1333	-.1339
300.000	-.1306	-.1335	-.1361	-.1342	-.1347	-.1349
330.000	-.1323	-.1315	-.1325	-.1337	-.1352	-.1359
360.000	-.1373	-.1335	-.1284	-.1323	-.1279	-.1279

MACH (1) = 2.498 ALPHA (2) = -5.840

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1432	-.1391	-.1356	-.1383	-.1352	-.1300
30.000	-.1404	-.1464	-.1379	-.1395	-.1385	-.1434
60.000	-.1420	-.1397	-.1461	-.1367	-.1349	-.1380
90.000	-.1420	-.1445	-.1375		-.1400	-.1407
120.000	-.1444	-.1415	-.1445		-.1464	-.1417
150.000	-.1440	-.1406	-.1405		-.1380	-.1442
180.000	-.1369	-.1416	-.1411		-.1428	-.1370
210.000	-.1354	-.1399	-.1414		-.1408	-.1426
240.000	-.1363	-.1415	-.1401		-.1403	-.1396
270.000	-.1366	-.1436	-.1366	-.1398	-.1390	-.1403
300.000	-.1373	-.1397	-.1417	-.1390	-.1408	-.1399
330.000	-.1368	-.1367	-.1393	-.1404	-.1368	-.1423
360.000	-.1432	-.1391	-.1356	-.1383	-.1352	-.1300

ARC 87-710 IA12C D2 + T1 + S1 LOWER LH MPS NOZ. (RBZ803)

MACH (1) = 2.498 ALPHA (3) = -3.850

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1488	-.1422	-.1421	-.1424	-.1419	-.1359
30.000	-.1436	-.1517	-.1410	-.1431	-.1428	-.1487
60.000	-.1473	-.1458	-.1512	-.1400	-.1392	-.1443
90.000	-.1477	-.1505	-.1453		-.1436	-.1467
120.000	-.1499	-.1472	-.1502		-.1512	-.1470
150.000	-.1483	-.1463	-.1487		-.1441	-.1505
180.000	-.1425	-.1467	-.1456		-.1483	-.1438
210.000	-.1412	-.1438	-.1464		-.1465	-.1471
240.000	-.1443	-.1473	-.1447		-.1449	-.1453
270.000	-.1421	-.1494	-.1449	-.1435	-.1455	-.1456
300.000	-.1419	-.1455	-.1482	-.1434	-.1440	-.1462
330.000	-.1419	-.1440	-.1445	-.1462	-.1439	-.1457
360.000	-.1488	-.1422	-.1421	-.1424	-.1419	-.1359

MACH (1) = 2.498 ALPHA (4) = -1.840

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1527	-.1465	-.1445	-.1462	-.1443	-.1386
30.000	-.1470	-.1554	-.1448	-.1459	-.1457	-.1506
60.000	-.1500	-.1492	-.1549	-.1434	-.1424	-.1479
90.000	-.1513	-.1531	-.1485		-.1482	-.1501
120.000	-.1523	-.1496	-.1531		-.1549	-.1496
150.000	-.1503	-.1483	-.1496		-.1468	-.1527
180.000	-.1484	-.1484	-.1499		-.1510	-.1460
210.000	-.1454	-.1479	-.1474		-.1482	-.1502
240.000	-.1460	-.1493	-.1494		-.1475	-.1479
270.000	-.1448	-.1521	-.1471	-.1494	-.1469	-.1497
300.000	-.1455	-.1484	-.1499	-.1474	-.1484	-.1484
330.000	-.1451	-.1469	-.1469	-.1489	-.1479	-.1494
360.000	-.1527	-.1465	-.1445	-.1462	-.1443	-.1386

ARC 87-710 IA12C D2 + T1 + S1 LOWER LH MPS NOZ. (RBZ803)

MACH (1) = 2.498 ALPHA (5) = .160

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1505	-.1475	-.1455	-.1458	-.1450	-.1374
30.000	-.1465	-.1544	-.1465	-.1469	-.1465	-.1520
60.000	-.1488	-.1504	-.1539	-.1453	-.1433	-.1450
90.000	-.1504	-.1529	-.1492		-.1487	-.3092
120.000	-.1530	-.1496	-.1531		-.1549	-.1515
150.000	-.1515	-.1492	-.1492		-.1473	-.1527
180.000	-.1457	-.1486	-.1492		-.1517	-.1463
210.000	-.1437	-.1479	-.1488		-.1484	-.1512
240.000	-.1463	-.1489	-.1486		-.1482	-.1475
270.000	-.1453	-.1523	-.1471	-.1486	-.1476	-.1492
300.000	-.1460	-.1484	-.1509	-.1459	-.1474	-.1488
330.000	-.1458	-.1476	-.1470	-.1494	-.1464	-.1486
360.000	-.1505	-.1475	-.1455	-.1458	-.1450	-.1374

MACH (1) = 2.498 ALPHA (6) = 2.160

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1495	-.1499	-.1489	-.1470	-.1477	-.1386
30.000	-.1487	-.1549	-.1487	-.1488	-.1462	-.1516
60.000	-.1483	-.1507	-.1544	-.1460	-.1447	-.1460
90.000	-.1530	-.1521	-.1500		-.1482	-.1510
120.000	-.1545	-.1508	-.1529		-.1561	-.1520
150.000	-.1519	-.1511	-.1506		-.1495	-.1534
180.000	-.1464	-.1512	-.1506		-.1521	-.1485
210.000	-.1442	-.1482	-.1510		-.1494	-.1507
240.000	-.1460	-.1506	-.1494		-.1499	-.1484
270.000	-.1443	-.1530	-.1484	-.1486	-.1491	-.1499
300.000	-.1476	-.1482	-.1518	-.1476	-.1482	-.1500
330.000	-.1458	-.1505	-.1479	-.1503	-.1479	-.1489
360.000	-.1495	-.1499	-.1489	-.1470	-.1477	-.1386

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ803)

MACH (1) = 2.498 ALPHA (7) = 4.170

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1510	-.1513	-.1471	-.1503	-.1522	-.1408
30.000	-.1495	-.1559	-.1501	-.1496	-.1503	-.1524
60.000	-.1523	-.1519	-.1551	-.1480	-.1462	-.1477
90.000	-.1537	-.1552	-.1519		-.1499	-.1512
120.000	-.1542	-.1537	-.1552		-.1566	-.1528
150.000	-.1539	-.1511	-.1527		-.1504	-.1537
180.000	-.1482	-.1522	-.1504		-.1535	-.1504
210.000	-.1471	-.1496	-.1532		-.1513	-.1526
240.000	-.1476	-.1530	-.1511		-.1494	-.1503
270.000	-.1477	-.1556	-.1496	-.1511	-.1510	-.1494
300.000	-.1462	-.1510	-.1534	-.1491	-.1503	-.1512
330.000	-.1463	-.1486	-.1506	-.1524	-.1496	-.1496
360.000	-.1510	-.1513	-.1471	-.1503	-.1522	-.1408

MACH (1) = 2.498 ALPHA (8) = 6.210

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1532	-.1506	-.1491	-.1501	-.1532	-.1459
30.000	-.1487	-.1568	-.1494	-.1498	-.1503	-.1552
60.000	-.1538	-.1514	-.1564	-.1453	-.1445	-.1477
90.000	-.1554	-.1560	-.1521		-.1487	-.1524
120.000	-.1549	-.1549	-.1548		-.1578	-.1533
150.000	-.1553	-.1530	-.1539		-.1506	-.1554
180.000	-.1482	-.1520	-.1521		-.1536	-.1494
210.000	-.1462	-.1511	-.1520		-.1515	-.1519
240.000	-.1479	-.1523	-.1499		-.1511	-.1491
270.000	-.1486	-.1554	-.1520	-.1499	-.1498	-.1497
300.000	-.1476	-.1509	-.1535	-.1498	-.1482	-.1500
330.000	-.1441	-.1510	-.1501	-.1530	-.1499	-.1479
360.000	-.1532	-.1506	-.1491	-.1501	-.1532	-.1459

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2B03)

MACH (1) = 2.498 ALPHA (9) = 8.190

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1508	-.1497	-.1500	-.1513	-.1554	-.1488
30.000	-.1492	-.1581	-.1499	-.1491	-.1501	-.1564
60.000	-.1548	-.1538	-.1581	-.1446	-.1435	-.1470
90.000	-.1549	-.1572	-.1548		-.1487	-.1539
120.000	-.1569	-.1547	-.1562		-.1578	-.1530
150.000	-.1532	-.1545	-.1540		-.1509	-.1558
180.000	-.1498	-.1515	-.1542		-.1548	-.1514
210.000	-.1469	-.1508	-.1520		-.1530	-.1524
240.000	-.1494	-.1537	-.1516		-.1521	-.1508
270.000	-.1484	-.1573	-.1513	-.1516	-.1493	-.1504
300.000	-.1481	-.1522	-.1554	-.1498	-.1491	-.1498
330.000	-.1424	-.1508	-.1522	-.1549	-.1518	-.1464
360.000	-.1508	-.1497	-.1500	-.1513	-.1554	-.1488

ARC 87-710 IA12C 02 + T1 + S1 LOWER LH MPS NOZ. (RB2804) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
ALPHA = .000

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1291	-.1470	-.1440	-.1380	-.1376	-.1287
30.000	-.1486	-.1544	-.1518	-.1440	-.1417	-.1528
60.000	-.1464	-.1513	-.1554	-.1494	-.1455	-.1405
90.000	-.1472	-.1522	-.1515		-.1487	-.1464
120.000	-.1480	-.1506	-.1524		-.1542	-.1482
150.000	-.1500	-.1494	-.1494		-.1505	-.1530
180.000	-.1477	-.1500	-.1475		-.1517	-.1505
210.000	-.1495	-.1484	-.1500		-.1506	-.1526
240.000	-.1496	-.1541	-.1472		-.1494	-.1501
270.000	-.1474	-.1540	-.1502	-.1457	-.1493	-.1480
300.000	-.1406	-.1491	-.1513	-.1463	-.1460	-.1438
330.000	-.1350	-.1488	-.1467	-.1385	-.1377	-.1367
360.000	-.1291	-.1470	-.1440	-.1380	-.1376	-.1287

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1266	-.1451	-.1436	-.1390	-.1279	-.1278
30.000	-.1462	-.1520	-.1508	-.1438	-.1385	-.1494
60.000	-.1449	-.1501	-.1523	-.1489	-.1445	-.1409
90.000	-.1451	-.1512	-.1486		-.1477	-.1457
120.000	-.1475	-.1492	-.1509		-.1515	-.1472
150.000	-.1498	-.1485	-.1492		-.1481	-.1503
180.000	-.1467	-.1481	-.1465		-.1500	-.1486
210.000	-.1466	-.1491	-.1481		-.1492	-.1502
240.000	-.1469	-.1510	-.1487		-.1495	-.1489
270.000	-.1455	-.1518	-.1488	-.1470	-.1481	-.1483
300.000	-.1409	-.1474	-.1510	-.1439	-.1487	-.1445
330.000	-.1371	-.1484	-.1460	-.1428	-.1375	-.1404
360.000	-.1266	-.1451	-.1436	-.1390	-.1279	-.1278

ARC 67-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2804)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1435	-.1456	-.1436	-.1458	-.1453	-.1400
30.000	-.1442	-.1503	-.1441	-.1428	-.1409	-.1446
60.000	-.1478	-.1496	-.1486	-.1408	-.1409	-.1445
90.000	-.1488	-.1495	-.1486		-.1429	-.1438
120.000	-.1463	-.1492	-.1500		-.1498	-.1441
150.000	-.1498	-.1478	-.1492		-.1496	-.1508
180.000	-.1467	-.1493	-.1468		-.1498	-.1491
210.000	-.1463	-.1497	-.1486		-.1485	-.1495
240.000	-.1470	-.1512	-.1494		-.1480	-.1475
270.000	-.1441	-.1504	-.1485	-.1480	-.1474	-.1459
300.000	-.1424	-.1465	-.1494	-.1458	-.1484	-.1462
330.000	-.1422	-.1462	-.1465	-.1487	-.1427	-.1436
360.000	-.1435	-.1456	-.1436	-.1458	-.1453	-.1400

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1483	-.1489	-.1438	-.1467	-.1489	-.1475
30.000	-.1472	-.1508	-.1465	-.1440	-.1433	-.1465
60.000	-.1490	-.1500	-.1483	-.1446	-.1438	-.1465
90.000	-.1499	-.1507	-.1493		-.1465	-.1467
120.000	-.1499	-.1492	-.1505		-.1515	-.1465
150.000	-.1484	-.1480	-.1480		-.1493	-.1493
180.000	-.1458	-.1483	-.1475		-.1507	-.1488
210.000	-.1453	-.1472	-.1486		-.1477	-.1500
240.000	-.1460	-.1505	-.1494		-.1470	-.1468
270.000	-.1431	-.1513	-.1490	-.1472	-.1471	-.1475
300.000	-.1430	-.1469	-.1504	-.1478	-.1462	-.1479
330.000	-.1439	-.1457	-.1479	-.1511	-.1482	-.1460
360.000	-.1493	-.1489	-.1438	-.1467	-.1489	-.1475

ARC 87-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RBZ804)

MACH (1) = 2.498 BETA (5) = -.070

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1501	-.1460	-.1443	-.1460	-.1463	-.1400
30.000	-.1533	-.1542	-.1460	-.1457	-.1482	-.1518
60.000	-.1505	-.1532	-.1535	-.1451	-.1416	-.1472
90.000	-.1506	-.1538	-.1525		-.1463	-.1496
120.000	-.1528	-.1504	-.1541		-.1535	-.1487
150.000	-.1512	-.1454	-.1499		-.1509	-.1527
180.000	-.1458	-.1431	-.1494		-.1536	-.1503
210.000	-.1463	-.1494	-.1496		-.1492	-.1522
240.000	-.1475	-.1534	-.1507		-.1473	-.1470
270.000	-.1457	-.1540	-.1500	-.1497	-.1464	-.1485
300.000	-.1448	-.1489	-.1521	-.1500	-.1487	-.1484
330.000	-.1443	-.1467	-.1484	-.1511	-.1473	-.1497
360.000	-.1501	-.1460	-.1443	-.1460	-.1463	-.1400

MACH (1) = 2.498 BETA (6) = 1.990

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1415	-.1472	-.1484	-.1510	-.1557	-.1539
30.000	-.1515	-.1513	-.1470	-.1486	-.1510	-.1561
60.000	-.1538	-.1542	-.1501	-.1424	-.1411	-.1462
90.000	-.1491	-.1555	-.1528		-.1451	-.1445
120.000	-.1535	-.1506	-.1538		-.1552	-.1496
150.000	-.1486	-.1514	-.1506		-.1530	-.1503
180.000	-.1450	-.1460	-.1434		-.1509	-.1508
210.000	-.1475	-.1467	-.1457		-.1485	-.1509
240.000	-.1465	-.1527	-.1458		-.1471	-.1470
270.000	-.1440	-.1527	-.1527	-.1467	-.1443	-.1463
300.000	-.1438	-.1503	-.1523	-.1505	-.1475	-.1453
330.000	-.1412	-.1498	-.1510	-.1518	-.1502	-.1477
360.000	-.1415	-.1472	-.1484	-.1510	-.1557	-.1539

ARC 07-710 IA12C O2 + T1 + S1 LOWER LH MPS NOZ. (RB2B04)

MACH (1) = 2.498 BETA (7) = 4.090

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0880	.2320	.4080	.5800	.7540	.9260
PHI						
.000	-.1470	-.1438	-.1454	-.1482	-.1530	-.1541
30.000	-.1515	-.1458	-.1482	-.1478	-.1482	-.1537
60.000	-.1468	-.1505	-.1422	-.1409	-.1418	-.1455
90.000	-.1463	-.1485	-.1457		-.1439	-.1421
120.000	-.1482	-.1508	-.1528		-.1490	-.1475
150.000	-.1459	-.1468	-.1485		-.1505	-.1444
180.000	-.1363	-.1433	-.1449		-.1483	-.1471
210.000	-.1441	-.1398	-.1435		-.1461	-.1475
240.000	-.1411	-.1492	-.1388		-.1432	-.1425
270.000	-.1373	-.1503	-.1475	-.1371	-.1399	-.1420
300.000	-.1358	-.1479	-.1498	-.1458	-.1403	-.1428
330.000	-.1364	-.1452	-.1498	-.1539	-.1460	-.1469
360.000	-.1470	-.1438	-.1454	-.1482	-.1530	-.1541

MACH (1) = 2.498 BETA (8) = 6.100

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0880	.2320	.4080	.5800	.7540	.9260
PHI						
.000	-.1498	-.1465	-.1488	-.1508	-.1528	-.1553
30.000	-.1535	-.1491	-.1499	-.1512	-.1529	-.1561
60.000	-.1493	-.1501	-.1413	-.1417	-.1423	-.1472
90.000	-.1480	-.1502	-.1452		-.1463	-.1452
120.000	-.1508	-.1518	-.1548		-.1503	-.1506
150.000	-.1478	-.1477	-.1491		-.1532	-.1442
180.000	-.1374	-.1482	-.1470		-.1493	-.1469
210.000	-.1439	-.1394	-.1455		-.1470	-.1468
240.000	-.1414	-.1505	-.1377		-.1434	-.1429
270.000	-.1364	-.1494	-.1495	-.1389	-.1421	-.1432
300.000	-.1380	-.1494	-.1487	-.1480	-.1394	-.1441
330.000	-.1309	-.1478	-.1518	-.1533	-.1505	-.1460
360.000	-.1498	-.1465	-.1488	-.1508	-.1528	-.1553

ARC 07-710 IA12C 02 + T1 + S1 LOWER LH MPS NOZ. (RBZ804)

MACH (1) = 2.490 BETA (9) = 7.130

SECTION (1)LOWER LH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1523	-.1465	-.1493	-.1505	-.1545	-.1507
30.000	-.1525	-.1504	-.1506	-.1529	-.1544	-.1603
60.000	-.1538	-.1518	-.1582	-.1523	-.1572	-.1462
90.000	-.1501	-.1536	-.1508		-.1443	-.1488
120.000	-.1537	-.1563	-.1594		-.1553	-.1539
150.000	-.1498	-.1484	-.1523		-.1525	-.1480
180.000	-.1414	-.1491	-.1477		-.1524	-.1486
210.000	-.1409	-.1431	-.1481		-.1475	-.1490
240.000	-.1463	-.1510	-.1409		-.1444	-.1441
270.000	-.1580	-.1545	-.1500	-.1402	-.1421	-.1439
300.000	-.1599	-.1500	-.1528	-.1470	-.1429	-.1433
330.000	-.1504	-.1500	-.1512	-.1545	-.1485	-.1498
360.000	-.1523	-.1465	-.1493	-.1505	-.1545	-.1507

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C01) (03 SEP 74)

REFERENCE DATA

SREF = 40.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = 1.000 OPR = 31.280
SPMPR = .916 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.498 ALPHA (1) = -7.900

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0980	.2320	.4080	.5600	.7540	.9280
PHI						
.000	-.0040	-.0042	-.0084	-.0021	-.0129	.0051
30.000	-.0054	-.0084	-.0092	-.0083	-.0005	.0025
60.000	.2141	-.0146	-.0079	-.0087	-.0048	.0695
90.000	.1262	-.0191	-.0078	-.0114	.0324	.0906
120.000	.0153	-.0006	-.0092	-.0167	-.0029	.0052
150.000	.0505	.0066	.0096	-.0120	-.0098	.0112
180.000	.0086	.0097	.0112	.0009	-.0093	-.0028
210.000	.0246	.0064	.0018	.0002	.0068	.0052
240.000	.0052	-.0087	-.0101	-.0081	-.0095	-.0303
270.000	-.0090	-.0216	-.0247	-.0312	-.0315	-.0282
300.000	-.0116	-.0076	-.0206	-.0242	-.0197	-.0133
330.000	-.0121	-.0082	-.0036	-.0187	-.0194	-.0137
360.000	-.0040	-.0042	-.0084	-.0021	-.0129	.0051

MACH (2) = 2.498 ALPHA (2) = -5.890

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0980	.2320	.4080	.5600	.7540	.9280
PHI						
.000	-.0108	-.0096	-.0109	-.0095	-.0201	-.0022
30.000	-.0105	-.0105	-.0161	-.0147	-.0050	-.0009
60.000	.1906	-.0160	-.0126	-.0154	-.0076	.0582
90.000	.0918	-.0237	-.0093	-.0113	.0147	.0662
120.000	.0252	-.0019	-.0118	-.0199	-.0071	-.0015
150.000	.0171	.0037	.0072	-.0136	-.0093	.0052
180.000	.0073	.0013	.0099	-.0033	-.0126	-.0084
210.000	.0265	.0068	-.0058	-.0035	.0076	.0064
240.000	.0084	-.0127	-.0063	-.0168	-.0119	-.0019
270.000	-.0139	-.0237	-.0309	-.0367	-.0433	-.0381
300.000	-.0145	-.0124	-.0263	-.0297	-.0277	-.0206
330.000	-.0194	-.0065	-.0100	-.0275	-.0266	-.0228
360.000	-.0105	-.0096	-.0109	-.0095	-.0201	-.0022

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C01)

MACH (1) = 2.498 ALPHA (3) = -3.900

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0178	-.0143	-.0211	-.0187	-.0274	-.0130
30.000	-.0198	-.0144	-.0239	-.0230	-.0113	-.0071
60.000	.0947	-.0244	-.0184	-.0210	-.0152	.0354
90.000	.0690	-.0289	-.0165	-.0160	-.0025	.0478
20.000	.0275	-.0080	-.0166	-.0214	-.0105	-.0069
150.000	.0056	-.0045	-.0004	-.0230	-.0117	.0013
180.000	-.0009	-.0059	-.0017	-.0102	-.0230	-.0141
210.000	.0260	-.0226	-.0138	-.0101	.0058	-.0008
240.000	.0013	-.0158	-.0147	-.0221	-.0191	-.0038
270.000	-.0265	-.0307	-.0588	-.0509	-.0560	-.0519
300.000	-.0234	-.0182	-.0338	-.0588	-.0588	-.0284
330.000	-.0284	-.0171	-.0148	-.0338	-.0369	-.0297
360.000	-.0178	-.0143	-.0211	-.0157	-.0274	-.0130

MACH (1) = 2.498 ALPHA (4) = -1.890

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0265	-.0209	-.0287	-.0288	-.0318	-.0205
30.000	-.0248	-.0238	-.0298	-.0294	-.0183	-.0038
60.000	.0487	-.0288	-.0265	-.0302	-.0240	.0180
90.000	.0338	-.0287	-.0236	-.0293	-.0154	.0246
120.000	.0182	-.0150	[illegible]	-.0290	-.0205	-.0144
150.000	-.0109	-.0102	-.0077	-.0216	-.0254	-.0166
180.000	-.0122	-.0123	-.0078	-.0182	-.0235	-.0254
210.000	.0161	-.0148	-.0204	-.0205	-.0353	.0023
240.000	.0085	-.0255	-.0236	-.0283	-.0278	-.0074
270.000	-.0338	-.0301	-.0477	-.0601	-.0654	-.0615
300.000	[illegible]	-.0223	-.0360	-.0473	-.0433	-.0352
330.000	-.0340	-.0254	-.0230	-.0372	-.0435	-.0357
360.000	-.0265	-.0209	-.0287	-.0266	-.0318	-.0205

ARC 87-710 IA12C D2 + T1 + S1 LOWER RH MPS NOZ. (RBZC01)

MACH (1) = 2.498 ALPHA (5) = .130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0328	-.028.	-.0377	-.0357	-.0386	-.0237
30.000	-.0285	-.0287	-.0354	-.0330	-.0258	-.0133
60.000	.0127	-.0354	-.0282	-.0309	-.0275	.0030
90.000	.0115	-.0363	-.0273	-.0290	-.0161	.0115
120.000	.0071	-.0194	-.0231	-.0350	-.0230	-.0137
150.000	-.0084	-.0147	-.0125	-.0294	-.0286	-.0133
180.000	-.0055	-.0170	-.012.	-.0221	-.0282	-.0239
210.000	.0166	-.0209	-.0266	-.0258	-.0112	-.0053
240.000	.0004	-.0280	-.0309	-.0369	-.0348	-.0195
270.000	-.0399	-.0357	-.0509	-.0650	-.0678	-.0672
300.000	-.0372	-.0315	-.0410	-.0495	-.0515	-.0401
330.000	-.0401	-.0304	-.0319	-.0434	-.0464	-.0398
360.000	-.0328	-.0287	-.0377	-.0357	-.0386	-.0237

MACH (1) = 2.498 ALPHA (6) = 2.080

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0321	-.0347	-.0403	-.0361	-.0386	-.0237
30.000	-.0315	-.0309	-.0381	-.0334	-.0259	-.0145
60.000	-.0031	-.0375	-.0318	-.0357	-.0292	-.0023
90.000	.0090	-.0334	-.0301	-.0317	-.0237	.0104
120.000	.0047	-.0227	-.0228	-.0361	-.0227	-.0223
150.000	-.0041	-.)194	-.0175	-.0286	-.0243	-.0112
180.000	-.0025	-.0237	-.0199	-.0259	-.0300	-.0236
210.000	.0074	-.0272	-.0364	-.0346	-.0233	-.0109
240.000	-.0050	-.0369	-.0360	-.0410	-.0400	-.0244
270.000	-.0396	-.0359	-.0459	-.0588	-.0611	-.0585
300.000	-.0331	-.0330	-.0416	-.0482	-.0462	-.0374
330.000	-.0377	-.0332	-.0351	-.0433	-.0437	-.0389
360.000	-.0321	-.0347	-.0403	-.0361	-.0386	-.0237

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC01)

MACH (1) = 2.498 ALPHA (7) = 4.100

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0284	-.0359	-.0415	-.0367	-.0385	-.0244
30.000	-.0314	-.0274	-.0371	-.0359	-.0246	-.0158
60.000	-.0063	-.0392	-.0313	-.0371	-.0321	-.0057
90.000	.0094	-.0360	-.0338	-.0337	-.0275	.0059
120.000	.0041	-.0264	-.0254	-.0383	-.0252	-.0263
150.000	.0084	-.0219	-.0233	-.0329	-.0245	-.0054
180.000	.0014	-.0225	-.0202	-.0322	-.0313	-.0200
210.000	.0157	-.0257	-.0366	-.0391	-.0279	-.0107
240.000	.0013	-.0351	-.0364	-.0434	-.0422	-.0206
270.000	-.0421	-.0399	-.0528	-.0603	-.0678	-.0663
300.000	-.0344	-.0310	-.0447	-.0530	-.0454	-.0369
330.000	-.0367	-.0359	-.0357	-.0454	-.0455	-.0396
360.000	-.0284	-.0359	-.0415	-.0367	-.0385	-.0244

MACH (1) = 2.498 ALPHA (8) = 6.130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0396	-.0466	-.0473	-.0362	-.0407	-.0321
30.000	-.0372	-.0357	-.0418	-.0436	-.0279	.0199
60.000	-.0097	-.0422	-.0374	-.0440	-.0427	-.0083
90.000	.0066	-.0377	-.0367	-.0423	-.0359	-.0042
120.000	-.0075	-.0266	-.0280	-.0424	-.0340	-.0249
150.000	.0113	-.0301	-.0202	-.0343	-.0268	-.0042
180.000	.0114	-.0282	-.0301	-.0322	-.0347	-.0201
210.000	.0121	-.0335	-.0457	-.0563	-.0402	-.0165
240.000	-.0002	-.0473	-.0538	-.0659	-.0661	-.0305
270.000	-.0518	-.0466	-.0612	-.0745	-.0936	-.0900
300.000	-.0442	-.0409	-.0478	-.0636	-.0523	-.0458
330.000	-.0451	-.0487	-.0390	-.0464	-.0541	-.0484
360.000	-.0396	-.0466	-.0473	-.0362	-.0407	-.0321

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC01)

MACH (1) = 2.498 ALPHA (9) = 8.140

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0418	-.0501	-.0496	-.0443	-.0475	-.0343
30.000	-.0402	-.0350	-.0466	-.0451	-.0373	-.0255
60.000	-.0154	-.0421	-.0387	-.0487	-.0451	-.0146
90.000	.0120	-.0395	-.0371	-.0475	-.0399	.0009
120.000	-.0048	-.0296	-.0299	-.0432	-.0360	-.0279
150.000	.0192	-.0266	-.0242	-.0381	-.0274	-.0027
180.000	.0240	-.0293	-.0312	-.0408	-.0429	-.0175
210.000	.0287	-.0365	-.0480	-.0612	-.0464	-.0173
240.000	.0059	-.0509	-.0611	-.0757	-.0716	-.0363
270.000	-.0750	-.0578	-.0730	-.0875	-.0969	-.0918
300.000	-.0451	-.0457	-.0611	-.0685	-.0592	-.0498
330.000	-.0494	-.0484	-.0481	-.0544	-.0552	-.0519
360.000	-.0418	-.0501	-.0496	-.0443	-.0475	-.0343

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C02) (05 SEP 74)

REFERENCE DATA

SREF	=	49.4000 SQ.FT.	XMRP	=	158.0000 INCHES
LREF	=	90.7000 INCHES	YMRP	=	.0000 INCHES
BREF	=	90.7000 INCHES	ZMRP	=	.0000 INCHES
SCALE	=	.0190 SCALE			

PARAMETRIC DATA

POWER	=	1.000	OPR	=	31.260
SRMPR	=	.916	GIMBAL	=	1.000
ALPHA	=	.000			

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0493	-.0485	-.0513	-.0476	-.0514	-.0374
30.000	-.0426	-.0349	-.0349	-.0385	-.0401	-.0350
60.000	-.0163	-.0361	-.0298	-.0339	-.0373	-.0250
90.000	-.0065	-.0396	-.0254	-.0304	-.0330	-.0136
120.000	-.0123	-.0337	-.0296	-.0329	-.0261	-.0185
150.000	.0414	-.0252	-.0218	-.0328	-.0032	.0318
180.000	.0163	-.0275	-.0202	-.0329	-.0335	-.0091
210.000	.0020	-.0306	-.0342	-.0370	-.0308	-.0200
240.000	-.0338	-.0415	-.0473	-.0521	-.0538	-.0433
270.000	-.0671	-.0590	-.0614	-.0643	-.0655	-.0725
300.000	-.0486	-.0528	-.0600	-.0588	-.0537	-.0507
330.000	-.0507	-.0501	-.0533	-.0533	-.0509	-.0497
360.000	-.0493	-.0485	-.0513	-.0476	-.0514	-.0374

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0475	-.0393	-.0471	-.0408	-.0447	-.0315
30.000	-.0369	-.0310	-.0302	-.0360	-.0349	-.0282
60.000	-.0102	-.0302	-.0259	-.03.9	-.0353	-.0180
90.000	-.0011	-.0336	-.0211	-.0248	-.0302	-.0101
120.000	-.0124	-.0263	-.0210	-.0281	-.0214	-.0187
150.000	.0381	-.0229	-.0162	-.0269	-.0064	.0255
180.000	.0194	-.0233	-.0176	-.0248	-.0264	-.0023
210.000	.0007	-.0254	-.0271	-.0353	-.0245	-.0173
240.000	-.0292	-.0369	-.0388	-.0467	-.0514	-.0388
270.000	-.0609	-.0504	-.0568	-.0633	-.0647	-.0711
300.000	-.0460	-.0420	-.0485	-.0535	-.0549	-.0458
330.000	-.0467	-.0448	-.0420	-.0452	-.0459	-.0434
360.000	-.0475	-.0393	-.0471	-.0408	-.0447	-.0315

DATE 04 DEC 74 TABULATED SOURCE DATA -IA12C (NOZZLE PRESSURES)

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC02)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0370	-.0289	-.0351	-.0351	-.0401	-.0244
30.000	-.0294	-.0312	-.0394	-.0413	-.0344	-.0191
60.000	-.0046	-.0333	-.0324	-.0415	-.0384	-.0119
90.000	.0015	-.0378	-.0294	-.0337	-.0356	-.0013
120.000	-.0122	-.0270	-.0263	-.0337	-.0229	-.0186
150.000	-.0138	-.0167	-.0165	-.0287	-.0266	-.0110
180.000	.0056	-.0140	-.0107	-.0232	-.0246	-.0195
210.000	.0090	-.0200	-.0207	-.0239	-.0173	-.0108
240.000	-.0208	-.0289	-.0300	-.0381	-.0394	-.0320
270.000	-.0486	-.0425	-.0507	-.0591	-.0652	-.0629
300.000	-.0406	-.0358	-.0430	-.0474	-.0480	-.0436
330.000	-.0451	-.0325	-.0342	-.0420	-.0445	-.0411
360.000	-.0370	-.0289	-.0351	-.0351	-.0401	-.0244

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0272	-.0250	-.0298	-.0334	-.0350	-.0154
30.000	-.0218	-.0221	-.0308	-.0308	-.0268	-.0126
60.000	.0017	-.0249	-.0223	-.0317	-.0270	-.0040
90.000	-.0013	-.0312	-.0204	-.0271	-.0259	-.0005
120.000	-.0141	-.0229	-.0218	-.0301	-.0227	-.0207
150.000	-.0162	-.0155	-.0152	-.0269	-.0225	-.0112
180.000	-.0031	-.0111	-.0086	-.0227	-.0224	-.0191
210.000	.0138	-.0050	-.0186	-.0199	-.0159	-.0062
240.000	-.0102	-.0225	-.0252	-.0317	-.0313	-.0246
270.000	-.0358	-.0350	-.0456	-.0494	-.0564	-.0497
300.000	-.0301	-.0334	-.0369	-.0429	-.0409	-.0344
330.000	-.0351	-.0260	-.0346	-.0378	-.0368	-.0316
360.000	-.0272	-.0250	-.0296	-.0334	-.0350	-.0154

ARC 87-710 IA12C D2 + T1 + S1 LOWER RH MPS NOZ. (RBZC02)

MACH (1) = 2.498 BETA (5) = -.070

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0329	-.0320	-.0395	-.0400	-.0386	-.0238
30.000	-.0277	-.0293	-.0382	-.0362	-.0311	-.0154
60.000	.0143	-.0349	-.0285	-.0344	-.0302	-.0019
90.000	.0054	-.0368	-.0277	-.0331	-.0203	.0089
120.000	.0058	-.0256	-.0231	-.0335	-.0295	-.0179
150.000	-.0107	-.0162	-.0177	-.0307	-.0254	-.0160
180.000	-.0102	-.0195	-.0159	-.0311	-.0307	-.0240
210.000	.0206	-.0252	-.0277	-.0276	-.0200	-.0082
240.000	-.0037	-.0260	.0338	-.0403	-.0392	-.0256
270.000	-.0473	-.0398	-.0521	-.0647	-.0738	-.0700
300.000	-.0399	-.0379	-.0446	-.0502	-.0493	-.0439
330.000	-.0429	-.0340	-.0374	-.0479	-.0469	-.0375
360.000	-.0329	-.0320	-.0395	-.0400	-.0386	-.0238

MACH (1) = 2.498 BETA (6) = 1.990

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0281	-.0301	-.0381	-.0386	-.0357	-.0189
30.000	-.0254	-.0281	-.0366	-.0346	-.0307	-.0155
60.000	.0317	-.0356	-.0264	-.0354	-.0289	.0094
90.000	.0218	-.0399	-.0282	-.0270	-.0112	.0235
120.000	.0098	-.0269	-.0288	-.0369	-.0194	-.0172
150.000	.0001	-.0177	-.0192	-.0325	-.0265	-.0018
180.000	.0050	-.0191	-.0165	-.0307	-.0306	-.0211
210.000	.0212	-.0195	-.0260	-.0272	-.0190	-.0070
240.000	-.0067	-.0307	-.0337	-.0392	-.0376	-.0235
270.000	-.0352	-.0452	-.0565	-.0656	-.0674	-.0601
300.000	-.0343	-.0398	-.0469	-.0518	-.0466	-.0389
330.000	-.0358	-.0343	-.0390	-.0445	-.0421	-.0342
360.000	-.0281	-.0301	-.0381	-.0386	-.0357	-.0189

DATE 04 DEC 74 TABULATED SOURCE DATA -IA12C (NOZZLE PRESSURES)

ARC 87-710 IA12C 02 + T1 + S1 LOWER RH MPS NOZ. (RBZC02)

MACH (1) = 2.498 BETA (7) = 4.040

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0290	-.0346	-.0421	-.0379	-.0371	-.0188
30.000	-.0239	-.0312	-.0365	-.0366	-.0317	-.0174
60.000	.0609	-.0387	-.0288	-.0358	-.0305	.0330
90.000	.0630	-.0434	-.0320	-.0315	-.0092	.0355
120.000	.0020	-.0343	-.0343	-.0369	-.0301	-.0241
150.000	.0112	-.0238	-.0266	-.0416	-.0323	-.0054
180.000	.0154	-.0219	-.0234	-.0377	-.0314	-.0099
210.000	.0257	-.0241	-.0322	-.0352	-.0223	-.0027
240.000	-.0086	-.0338	-.0403	-.0434	-.0423	-.0256
270.000	-.0358	-.0499	-.0587	-.0666	-.0643	-.0600
300.000	-.0399	-.0450	-.0501	-.0502	-.0495	-.0391
330.000	-.0319	-.0390	-.0421	-.0454	-.0419	-.0305
360.000	-.0290	-.0346	-.0421	-.0379	-.0371	-.0188

MACH (1) = 2.498 BETA (8) = 6.110

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.0314	-.0427	-.0445	-.0398	-.0370	-.0220
30.000	-.0252	-.0390	-.0413	-.0431	-.0387	-.0222
60.000	.1635	-.0434	-.0307	-.0423	-.0324	.0778
90.000	.1119	-.0472	-.0350	-.0356	.0129	.0836
120.000	-.0289	-.0413	-.0381	-.0454	-.0355	-.0320
150.000	-.0009	-.0315	-.0320	-.0473	-.0433	-.0208
180.000	.0276	-.0262	-.0260	-.0426	-.0346	-.0163
210.000	.0211	-.0267	-.0310	-.0347	-.0210	.0026
240.000	-.0198	-.0375	-.0427	-.0459	-.0444	-.0317
270.000	-.0542	-.0499	-.0554	-.0552	-.0575	-.0610
300.000	-.0487	-.0552	-.0475	-.0497	-.0424	-.0422
330.000	-.0400	-.0594	-.0529	-.0454	-.0444	-.0277
360.000	-.0314	-.0427	-.0445	-.0398	-.0370	-.0220

ARC 87-710 IA12C 02 + T1 + S1 LOWER RH MPS NOZ. (RBZC02)

MACH (1) = 2.498 BETA (9) = 7.130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.0369	-.0466	-.0502	-.0462	-.0433	-.0257
30.000	-.0262	-.0438	-.0446	-.0455	-.0417	-.0262
60.000	.2152	-.0490	-.0352	-.0465	-.0311	.1118
90.000	.1297	-.0483	-.0423	-.0356	.0348	.1139
120.000	-.0354	-.0399	-.0364	-.0416	-.0300	-.0285
150.000	-.0112	-.0321	-.0293	-.0433	-.0430	-.0268
180.000	.0115	-.0302	-.0273	-.0440	-.0418	-.0307
210.000	.0178	-.0293	-.0299	-.0345	-.0165	.0033
240.000	-.0275	-.0405	-.0416	-.0442	-.0442	-.0336
270.000	-.0561	-.0564	-.0613	-.0601	-.0566	-.0641
300.000	-.0534	-.0621	-.0595	-.0547	-.0513	-.0452
330.000	-.0466	-.0628	-.0628	-.0555	-.0518	-.0359
360.000	-.0369	-.0496	-.0502	-.0462	-.0433	-.0257

DATE 04 DEC 74 TABULATED SOURCE DATA -IA12C (NOZZLE PRESSURES)

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC03) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
BETA = .000

MACH (1) = 2.498 ALPHA (1) = -7.830

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1379	-.1340	-.1214	-.0803	.0120	-.0947
30.000	.0433	-.1316	-.1165	-.1162	-.0989	-.0502
60.000	.2376	-.1327	-.1255	-.0521	.1767	.3234
90.000	.1262	-.1359	-.1342	-.0108	.1517	.1474
120.000	-.0569	-.1320	-.1284	-.1300	-.0637	-.0442
150.000	-.1749	-.1293	-.1241	-.1360	-.1433	-.1599
180.000	-.1460	-.1290	-.1209	-.1325	-.1355	-.1319
210.000	-.1290	-.1333	-.1242	-.1350	-.1337	-.1343
240.000	-.1362	-.1312	-.1340	-.1314	-.1369	-.1361
270.000	-.1390	-.1366	-.1341	-.1479	-.1475	-.1470
300.000	-.1424	-.1416	-.1523	-.1597	-.1652	-.1491
330.000	-.1424	-.1470	-.1521	-.1348	-.1061	-.1384
360.000	-.1379	-.1340	-.1214	-.0803	.0120	-.0947

MACH (1) = 2.498 ALPHA (2) = -5.840

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1420	-.1388	-.1250	-.0872	.0299	-.0824
30.000	-.0052	-.1357	-.1194	-.1233	-.0949	-.0691
60.000	.2128	-.1398	-.1301	-.0672	.1297	.2893
90.000	.1058	-.1419	-.1403	-.0393	.1216	.1274
120.000	-.0728	-.1380	-.1347	-.1403	-.0859	-.0555
150.000	-.1746	-.1363	-.1301	-.1413	-.1452	-.1616
180.000	-.1513	-.1355	-.1281	-.1392	-.1417	-.1377
210.000	-.1353	-.1369	-.1292	-.1419	-.1397	-.1417
240.000	-.1441	-.1355	-.1398	-.1381	-.1439	-.1425
270.000	-.1447	-.1477	-.1384	-.1528	-.1520	-.1503
300.000	-.1472	-.1518	-.1607	-.1536	-.1655	-.1518
330.000	-.1465	-.1539	-.1535	-.1403	-.1353	-.1430
360.000	-.1420	-.1388	-.1250	-.0872	.0299	-.0824

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C03)

MACH (1) = 2.498 ALPHA (3) = -5.850

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1442	-.1410	-.1260	-.0943	.0352	-.0778
30.000	-.0349	-.1366	-.1266	-.1307	-.1039	-.0817
60.000	.1659	-.1447	-.1327	-.0898	.0616	.2556
90.000	.0818	-.1467	-.1456	-.0732	.0899	.1088
120.000	-.0913	-.1424	-.1395	-.1503	-.1072	-.0725
150.000	-.1748	-.1419	-.1356	-.1472	-.1505	-.1642
180.000	-.1574	-.1398	-.1325	-.1447	-.1475	-.1459
210.000	-.1445	-.1462	-.1339	-.1462	-.1466	-.1492
240.000	-.1508	-.1430	-.1469	-.1417	-.1477	-.1470
270.000	-.1502	-.1523	-.1469	-.1569	-.1530	-.1546
300.000	-.1498	-.1573	-.1640	-.1568	-.1674	-.1505
330.000	-.1472	-.1591	-.1554	-.1441	-.1500	-.1457
360.000	-.1442	-.1410	-.1260	-.0943	.0352	-.0778

MACH (1) = 2.498 ALPHA (4) = -1.840

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1487	-.1458	-.1272	-.0989	.0105	-.0843
30.000	-.0647	-.1431	-.1316	-.1357	-.1108	-.0981
60.000	.1691	-.1469	-.1360	-.1158	.0319	.2222
90.000	.0310	-.1506	-.1491	-.0938	.0653	.0773
120.000	-.1132	-.1472	-.1446	-.1525	-.1177	-.0952
150.000	-.1768	-.1455	-.1395	-.1520	-.1527	-.1667
180.000	-.1609	-.1429	-.1361	-.1490	-.1511	-.1491
210.000	-.1474	-.1496	-.1374	-.1498	-.1504	-.1511
240.000	-.1535	-.1457	-.1501	-.1453	-.1507	-.1518
270.000	-.1537	-.1566	-.1505	-.1589	-.1554	-.1572
300.000	-.1519	-.1609	-.1650	-.1621	-.1679	-.1542
330.000	-.1496	-.1617	-.1573	-.1485	-.1602	-.1448
360.000	-.1487	-.1458	-.1272	-.0989	.0105	-.0843

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C03)

MACH (1) = 2.496 ALPHA (5) = .160

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1462	-.1479	-.1309	-.1096	-.0310	-.0895
30.000	-.0745	-.1411	-.1323	-.1355	-.1142	-.0860
60.000	.0906	-.1467	-.1357	-.1162	.0182	.1664
90.000	-.0186	-.1508	-.1486	-.0889	.0224	.0106
120.000	-.1163	-.1465	-.1446	-.1547	-.1191	-.1013
150.000	-.1744	-.1462	-.1378	-.1528	-.1530	-.1621
180.000	-.1584	-.1443	-.1370	-.1473	-.1518	-.1499
210.000	-.1489	-.1491	-.1379	-.1505	-.1480	-.1518
240.000	-.1561	-.1464	-.1499	-.1494	-.1520	-.1504
270.000	-.1533	-.1554	-.1508	-.1574	-.1576	-.1591
300.000	-.1541	-.1561	-.1642	-.1609	-.1655	-.1566
330.000	-.1527	-.1629	-.1595	-.1475	-.1592	-.1403
360.000	-.1462	-.1479	-.1309	-.1096	-.0310	-.0895

MACH (1) = 2.496 ALPHA (6) = 2.160

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0560	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1477	-.1508	-.1376	-.1211	-.0899	-.0984
30.000	-.0756	-.1428	-.1342	-.1381	-.1258	-.0817
60.000	.0638	-.1469	-.1362	-.1196	-.0224	.0776
90.000	.0049	-.1494	-.1469	-.1101	-.0036	.0196
120.000	-.1204	-.1470	-.1421	-.1544	-.1403	-.1102
150.000	-.1727	-.1467	-.1395	-.1499	-.1505	-.1584
180.000	-.1562	-.1453	-.1365	-.1494	-.1499	-.1491
210.000	-.1501	-.1501	-.1381	-.1522	-.1516	-.1518
240.000	-.1527	-.1486	-.1499	-.1499	-.1543	-.1542
270.000	-.1587	-.1532	-.1520	-.1567	-.1566	-.1617
300.000	-.1560	-.1564	-.1640	-.1634	-.1650	-.1595
330.000	-.1566	-.1629	-.1614	-.1401	-.1576	-.1362
360.000	-.1477	-.1508	-.1376	-.1211	-.0899	-.0984

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C03)

MACH (1) = 2.498 ALPHA (7) = 4.170

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1530	-.1525	-.1371	-.1229	-.0914	-.1088
30.000	-.1116	-.1462	-.1336	-.1410	-.1318	-.1153
60.000	.0935	-.1436	-.1374	-.1360	-.0441	.1032
90.000	.0053	-.1500	-.1481	-.1225	-.0113	.0213
120.000	-.1257	-.1489	-.1440	-.1534	-.1511	-.1191
150.000	-.1703	-.1478	-.1404	-.1515	-.1513	-.1569
180.000	-.1577	-.1466	-.1363	-.1521	-.1515	-.1513
210.000	-.1513	-.1516	-.1391	-.1522	-.1545	-.1550
240.000	-.1550	-.1496	-.1506	-.1509	-.1546	-.1552
270.000	-.1595	-.1560	-.1532	-.1603	-.1576	-.1593
300.000	-.1553	-.1587	-.1663	-.1645	-.1640	-.1617
330.000	-.1588	-.1617	-.1616	-.1426	-.1595	-.1350
360.000	-.1530	-.1525	-.1371	-.1229	-.0914	-.1088

MACH (1) = 2.495 ALPHA (8) = 6.210

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1557	-.1523	-.1340	-.1089	-.0832	-.1208
30.000	-.1240	-.1447	-.1336	-.1426	-.1320	-.1174
60.000	.0760	-.1500	-.1360	-.1355	-.0543	.0944
90.000	-.0128	-.1513	-.1500	-.1243	-.0231	.0029
120.000	-.1558	-.1496	-.1458	-.1532	-.1540	-.1268
150.000	-.1679	-.1486	-.1419	-.1542	-.1518	-.1557
180.000	-.1579	-.1477	-.1369	-.1535	-.1539	-.1518
210.000	-.1532	-.1530	-.1412	-.1526	-.1568	-.1559
240.000	-.1556	-.1505	-.1533	-.1527	-.1541	-.1569
270.000	-.1590	-.1563	-.1544	-.1591	-.1583	-.1598
300.000	-.1560	-.1614	-.1661	-.1650	-.1645	-.1604
330.000	-.1571	-.1636	-.1614	-.1470	-.1599	-.1589
360.000	-.1557	-.1523	-.1340	-.1089	-.0832	-.1208

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C03)

MACH (1) = 2.498 ALPHA (9) = 8.190

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/O	.0960	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1579	-.1545	-.1564	-.1103	-.0834	-.1223
30.000	-.1284	-.1474	-.1331	-.1445	-.1328	-.1156
60.000	.0853	-.1906	-.1369	-.1540	-.0703	.0664
90.000	-.0199	-.1530	-.1496	-.1372	-.0445	-.0102
120.000	-.1445	-.1498	-.1462	-.1520	-.1564	-.1362
150.000	-.1619	-.1505	-.1426	-.1542	-.1525	-.1535
180.000	-.1564	-.1465	-.1575	-.1528	-.1537	-.1525
210.000	-.1550	-.1528	-.1403	-.1562	-.1571	-.1565
240.000	-.1587	-.1515	-.1538	-.1530	-.1572	-.1568
270.000	-.1567	-.1580	-.1549	-.1564	-.1605	-.1612
300.000	-.1589	-.1599	-.1675	-.1687	-.1662	-.1626
330.000	-.1583	-.1660	-.1645	-.1494	-.1588	-.1416
360.000	-.1579	-.1545	-.1564	-.1103	-.0834	-.1223

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RB2C04) (03 SEP 74)

REFERENCE DATA

SREF = 49.4000 SQ.FT. XMRP = 158.0000 INCHES
LREF = 90.7000 INCHES YMRP = .0000 INCHES
BREF = 90.7000 INCHES ZMRP = .0000 INCHES
SCALE = .0190 SCALE

PARAMETRIC DATA

POWER = .000 GIMBAL = 1.000
ALPHA = .000

MACH (1) = 2.498 BETA (1) = -7.270

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/C	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1284	-.1482	-.1522	-.1421	-.1475	-.0793
30.000	-.0967	-.1453	-.1562	-.1414	-.1292	-.1021
60.000	.1115	-.1431	-.1243	-.1564	-.0854	.0680
90.000	-.0190	-.1470	-.1358	-.1562	-.0490	-.0057
120.000	-.1221	-.1433	-.1583	-.1422	-.1418	-.1078
150.000	-.1484	-.1445	-.1356	-.1441	-.1436	-.1470
180.000	-.1474	-.1436	-.1291	-.1457	-.1453	-.1446
210.000	-.1458	-.1474	-.1552	-.1481	-.1485	-.1492
240.000	-.1482	-.1482	-.1482	-.1432	-.1486	-.1475
270.000	-.1478	-.1516	-.1400	-.1494	-.1458	-.1500
300.000	-.1529	-.1509	-.1528	-.1482	-.1509	-.1484
330.000	-.1508	-.1519	-.1516	-.1501	-.1528	-.1374
360.000	-.1284	-.1482	-.1522	-.1421	-.1475	-.0793

MACH (1) = 2.498 BETA (2) = -6.240

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/C	.0580	.2320	.4080	.5800	.7540	.9280
PHI						
.000	-.1224	-.1443	-.1503	-.1428	-.1496	-.0951
30.000	-.0887	-.1445	-.1593	-.1398	-.1508	-.0932
60.000	.1398	-.1422	-.1250	-.1355	-.0840	.0919
90.000	-.0107	-.1453	-.1361	-.1355	-.0457	.0019
120.000	-.1269	-.1433	-.1373	-.1410	-.1394	-.1093
150.000	-.1520	-.1436	-.1358	-.1443	-.1410	-.1455
180.000	-.1470	-.1441	-.1506	-.1455	-.1451	-.1412
210.000	-.1410	-.1453	-.1350	-.1481	-.1473	-.1446
240.000	-.1436	-.1459	-.1462	-.1429	-.1479	-.1459
270.000	-.1476	-.1472	-.1459	-.1470	-.1459	-.1496
300.000	-.1520	-.1490	-.1475	-.1449	-.1492	-.1446
330.000	-.1465	-.1517	-.1499	-.1501	-.1495	-.1365
360.000	-.1224	-.1443	-.1503	-.1428	-.1496	-.0951

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC04)

MACH (1) = 2.498 BETA (3) = -4.180

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1221	-.1408	-.1489	-.1449	-.1296	-.1221
30.000	-.0626	-.1450	-.1247	-.1379	-.1104	-.0679
60.000	.1479	-.1429	-.1302	-.1295	-.0518	.1279
90.000	.0148	-.1448	-.1373	-.1294	-.0289	.0241
120.000	-.1231	-.1441	-.1376	-.1444	-.1382	-.1081
150.000	-.1597	-.1426	-.1352	-.1461	-.1451	-.1494
180.000	-.1492	-.1412	-.1318	-.1466	-.1470	-.1444
210.000	-.1436	-.1455	-.1343	-.1477	-.1456	-.1468
240.000	-.1470	-.1456	-.1453	-.1369	-.1472	-.1454
270.000	-.1487	-.1499	-.1456	-.1460	-.1393	-.1496
300.000	-.1517	-.1511	-.1523	-.1449	-.1494	-.1448
330.000	-.1460	-.1524	-.1571	-.1571	-.1449	-.1323
360.000	-.1221	-.1408	-.1489	-.1449	-.1296	-.1221

MACH (1) = 2.498 BETA (4) = -2.130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1401	-.1489	-.1479	-.1352	-.1016	-.0708
30.000	-.0755	-.1421	-.1338	-.1379	-.1161	-.0839
60.000	.1433	-.1463	-.1326	-.1391	-.0224	.1570
90.000	.0054	-.1480	-.1421	-.1250	-.0021	.0409
120.000	-.1243	-.1441	-.1400	-.1485	-.1404	-.1114
150.000	-.1724	-.1438	-.1368	-.1480	-.1482	-.1548
180.000	-.1526	-.1439	-.1317	-.1454	-.1485	-.1475
210.000	-.1461	-.1462	-.1367	-.1488	-.1470	-.1468
240.000	-.1475	-.1473	-.1465	-.1472	-.1496	-.1482
270.000	-.1528	-.1489	-.1460	-.1499	-.1540	-.1570
300.000	-.1548	-.1514	-.1525	-.1511	-.1584	-.1583
330.000	-.1566	-.1529	-.1580	-.1599	-.1625	-.1282
360.000	-.1401	-.1489	-.1479	-.1352	-.1016	-.0708

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC04)

MACH (1) = 2.498 BETA (5) = -.070

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1497	-.1468	-.1293	-.1068	-.0301	-.0953
30.000	-.0621	-.1419	-.1338	-.1331	-.1144	-.0856
60.000	.0926	-.1475	-.1353	-.1129	.0224	.1677
90.000	-.0177	-.1509	-.1512	-.0858	.0269	.0112
120.000	-.1139	-.1479	-.1443	-.1567	-.1217	-.0983
150.000	-.1727	-.1452	-.1395	-.1513	-.1548	-.1604
180.000	-.1575	-.1434	-.1366	-.1497	-.1516	-.1526
210.000	-.1519	-.1467	-.1369	-.1496	-.1504	-.1520
240.000	-.1566	-.1485	-.1472	-.1470	-.1505	-.1518
270.000	-.1547	-.1575	-.1536	-.1560	-.1564	-.1579
300.000	-.1522	-.1583	-.1683	-.1644	-.1640	-.1561
330.000	-.1530	-.1617	-.1580	-.1475	-.1657	-.1394
360.000	-.1497	-.1468	-.1293	-.1068	-.0301	-.0953

MACH (1) = 2.498 BETA (6) = 1.990

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1484	-.1355	-.1169	-.1025	-.0521	-.1019
30.000	-.0222	-.1336	-.1331	-.1324	-.1237	-.0789
60.000	.1108	-.1493	-.1314	-.0971	.0427	.1443
90.000	.0358	-.1520	-.1546	-.0724	.0401	.0503
120.000	-.1640	-.1453	-.1448	-.1531	-.1180	-.0872
150.000	-.1749	-.1460	-.1380	-.1518	-.1543	-.1592
180.000	-.1575	-.1434	-.1390	-.1478	-.1518	-.1516
210.000	-.1507	-.1448	-.1376	-.1517	-.1504	-.1520
240.000	-.1561	-.1492	-.1462	-.1463	-.1522	-.1518
270.000	-.1552	-.1575	-.1565	-.1504	-.1535	-.1563
300.000	-.1551	-.1647	-.1759	-.1744	-.1555	-.1552
330.000	-.1547	-.1360	-.1390	-.1408	-.1674	-.1353
360.000	-.1484	-.1355	-.1169	-.1025	-.0521	-.1019

ARC 87-710 IA12C 02 + T1 + S1 LOWER RH MPS NOZ. (RBZC04)

MACH (1) = 2.498 BETA (7) = 4.050

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/C	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1399	-.1263	-.0923	-.0641	-.0649	-.1025
30.000	-.0328	-.1334	-.1350	-.1300	-.1022	-.0181
60.000	.1464	-.1497	-.1310	-.0944	.0862	.2058
90.000	.0725	-.1508	-.1526	-.0602	.0793	.0921
120.000	-.0922	-.1433	-.1440	-.1536	-.1112	-.0795
150.000	-.1724	-.1455	-.1334	-.1496	-.1541	-.1562
180.000	-.1532	-.1417	-.1373	-.1483	-.1494	-.1509
210.000	-.1536	-.1403	-.1367	-.1479	-.1490	-.1408
240.000	-.1541	-.1499	-.1425	-.1448	-.1493	-.1492
270.000	-.1523	-.1577	-.1579	-.1442	-.1496	-.1514
300.000	-.1507	-.1626	-.1721	-.1705	-.1499	-.1501
330.000	-.1496	-.1500	-.1316	-.1570	-.1671	-.1305
360.000	-.1399	-.1263	-.0923	-.0641	-.0649	-.1025

MACH (1) = 2.498 BETA (8) = 6.100

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/C	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1411	-.1388	-.0999	-.0051	-.0858	-.1130
30.000	.0055	-.1362	-.1352	-.1274	-.1003	-.0700
60.000	.1746	-.1495	-.1342	-.0649	.1599	.2518
90.000	.0898	-.1516	-.1536	-.0102	.1258	.1184
120.000	-.0790	-.1455	-.1443	-.1473	-.0914	-.0639
150.000	-.1777	-.1459	-.1390	-.1537	-.1620	-.1646
180.000	-.1572	-.1441	-.1382	-.1495	-.1547	-.1557
210.000	-.1555	-.1416	-.1393	-.1502	-.1514	-.1549
240.000	-.1566	-.1536	-.1413	-.1477	-.1524	-.1516
270.000	-.1535	-.1592	-.1611	-.1453	-.1516	-.1555
300.000	-.1555	-.1657	-.1743	-.1722	-.1506	-.1535
330.000	-.1533	-.1555	-.1356	-.1530	-.1686	-.1311
360.000	-.1411	-.1388	-.0999	-.0051	-.0858	-.1130

ARC 87-710 IA12C O2 + T1 + S1 LOWER RH MPS NOZ. (RBZC04)

MACH (1) = 2.498 BETA (9) = 7.130

SECTION (1)LOWER RH MPS NOZ. DEPENDENT VARIABLE CP

X/D	.0580	.2320	.4060	.5800	.7540	.9280
PHI						
.000	-.1458	-.1436	-.1199	-.0750	-.0442	-.1074
30.000	.0438	-.1385	-.1367	-.1247	-.0836	-.0270
60.000	.1744	-.1492	-.1360	-.0528	.2223	.2525
90.000	.0989	-.1523	-.1510	.0231	.1396	.1307
120.000	-.0695	-.1479	-.1477	-.1436	-.0823	-.0576
150.000	-.1818	-.1481	-.1411	-.1523	-.1685	-.1676
180.000	-.1617	-.1475	-.1401	-.1520	-.1532	-.1591
210.000	-.1572	-.1451	-.1410	-.1528	-.1539	-.1542
240.000	-.1568	-.1519	-.1461	-.1501	-.1552	-.1551
270.000	-.1563	-.1561	-.1606	-.1502	-.1537	-.1591
300.000	-.1593	-.1635	-.1729	-.1760	-.1581	-.1580
330.000	-.1579	-.1598	-.1468	-.1425	-.1736	-.1339
360.000	-.1458	-.1436	-.1199	-.0750	-.0442	-.1074